DEPARTMENT OF THE NAVY
NAVAL HOSPITAL
BOX 788250
MARINE CORPS AIR GROUND COMBAT CENTER
TWENTYNINE PALMS, CALIFORNIA 92278-8250

IN REPLY REFER TO:
NAVHOSP29PALMSINST 6220.10C
Code 0901
28 October 1997

NAVAL HOSPITAL TWENTYNINE PALMS INSTRUCTION 6220.10C

From: Commanding Officer

Subj: INFECTION CONTROL PROGRAM

Ref: (a) NAVMEDCOMINST 6220.2A
(b) NAVMEDCOMINST 6230.3
(c) NAVMED P-5010
(d) 29 CFR 1910.32 (a) and (c)
(e) 29 CFR 1910.1030 Occupational Exposure to Bloodborne Pathogens
(f) California Health and Safety Code, Chapter 6.1
(g) Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), Accreditation Manual for Hospitals
(h) CDC GUIDELINES for Handwashing and Hospital Environmental Control, 1985
(i) CDC GUIDELINES for Prevention of Catheter-Associated Urinary Tract Infections, 1982
(j) CDC GUIDELINES for Isolation Precautions in Hospitals, 1996
(k) OPNAVINST 5420.27J
(l) NAVHOSP29PALMSINST 6220.2B

Encl: (l) NOSOCOMIAL INFECTIONS-General Considerations
(2) Nosocomial Primary Bloodstream Infection
(3) Nosocomial Pneumonia
(4) Nosocomial Urinary Tract Infections (UTIs)
(5) Nosocomial Surgical-Site Infections (SSIs)
(6) Infection Control Surveillance Report, NAVHOSP29PALMS Form 6220/10 (Rev. 4/94)
(7) Infection Control Manual

1. Purpose. To publish a comprehensive Command Infection Control Program and cite the composition of the Infection Control Committee.

2. Cancellation. NAVHOSP29PALMSINST 6220.10B.

3. Policy. Naval Hospital shall comply with state and federal laws and regulations detailing safe and efficient handling and disposal of infectious materials, in an effort to minimize the risk of infectious disease to both patients and staff members.

4. Background

a. Per references (a) through (l), the Infection Control Manual outlines effective infection control procedures. Medical treatment facilities are unique because they are a central location where the sick, injured, and well people merge to receive or administer health care. As a result, the infection risk may be intensified. Infections may develop among staff, visitors, and patients (particularly those with compromised immunity).

b. The Infection Control Committee assists the Commanding Officer in developing and implementing infection control policies and procedures. This committee is established per reference (k).

5. Composition. The Infection Control Committee is comprised of a Staff Physician with surgical privileges who will act as Chair; an Infection Control Officer; and the following members:

a. Representative, Occupational Health/Preventive Medicine (OH/PM)Department.

b. Representative of Surgical Services

c. Representative of Administrative Services

d. Representative of Medical Services

e. Representative of Nursing Services

f. Representative of Ancillary Services

g. Representative of Material Management Department

h. Performance Improvement Assistant (Recorder)

i. Ad hoc members as deemed necessary.

6. Action

a. Infection Control Committee shall:

(l) Meet at least quarterly.

(2) Develop and maintain a comprehensive program to prevent, identify and control infections.

(3) Define and publish standard objective criteria for the diagnosis of nosocomial infections. Enclosure (l) provides basic criteria.

(4) Develop surveillance and reporting procedures.

(5) Review of proposals, protocols, and results of special infection control studies.

(6) Review antibiotic susceptibility trends.

(7) Review patient care audits identifying nosocomial infections as a result of the audit.

(8) Review medical records reflecting the presence of an infection not reported in the final diagnosis.

(9) Institute control measures or studies when it is determined that there is a reasonable danger to any patient or staff member.

(10) Assist with infection control related continuing education programs.

(11) Assist with infection control related employee health programs.

(12) Review zone inspection reports for infection control management assessment.

(13) Review microbiology reports monthly to detect positive cultures.

(14) Review equipment, cleaning agent selection, linen contract and infectious waste instruction.

(15) Through the Chair or Infection Control Officer, institute any appropriate control measures or studies when it is believed there is danger to any patient or personnel and notify the appropriate staff members.

b. The Chair, Infection Control Committee shall:

(l) Inform the Commanding Officer of all matters affecting infection control, including outbreaks or conditions that place patients or staff personnel at increased risk to infectious disease. Immediate control measures will be taken when a significant health risk is evident. The Commanding Officer and the cognizant department head(s) will be notified immediately of action(s) taken or planned.

(2) Prepare an annual report summarizing significant events, trends, and problems identified during the year, actions taken and results or status of those actions.

(3) Act in behalf of the Infection Control Officer in his/her absence.

c. The Infection Control Officer (ICO) shall:

(l) Interpret and ensure implementation of policies of the committee as approved by the Commanding Officer.

(2) Be authorized to investigate all reports of real or suspected infections or contagious diseases and have access to all records or spaces needed for the investigation and, when necessary, institute appropriate isolation procedures. When such actions are taken, notify the attending physician.

(3) Supervise and teach isolation techniques, working with all departments concerning isolation policies and infection control problems.

(4) Make recommendations for policies to correct infection control deficiencies. The recommendations will be made via the Infection Control Committee Chair.

(5) Report all communicable diseases listed in reference (j) to the Head, OH/PM Department.

(6) Conduct infection surveillance and investigate all suspected nosocomial infections, including infections reported in Infection Control Surveillance Report, NAVHOSP29PALMS Form 6220/10 (Rev. 4/94), enclosure (6).

(7) Report all significant infection control trends or concerns to the Infection Control Committee.

(8) Monitor the employee health program regarding communicable disease exposures or infections.

(9) Contribute to staff education by:

(a) Developing infection control education lesson plans.

(b) Presenting lessons on infection control policies and procedures at orientation, inservice education, and annual training update classes.

(c) Ensuring personnel who perform zone inspections are aware of the infection control policies and their responsibilities to report discrepancies.

(10) Review proposals for buying new items that may impact on infection control, such as disinfectant cleaning products, soap dispensers or sharps disposal equipment.

(11) Review proposed contracts that have an impact on the infection control program, such as housekeeping, waste disposal and other services.

(12) Remain informed on current Navy directives and health literature on infection control policies, procedures and trends.

(13) Review and maintain a copy of all blood borne pathogen exposure reports.

(14) Ensure all infection control procedures are updated annually.

d. Recorder shall:

(1) Prepare, distribute, and maintain files of all meeting minutes.

(2) Include in the minutes nosocomial infection, antibiotic susceptibility and infection control policy recommendations the preceding quarter. Approval of these recommendations shall be the authority for their implementation.

e. Head, Occupational Health/Preventive Medicine Department shall direct monitoring of the hospital environment by:

(1) Collecting appropriate water and ice samples for bacteriological content.

(2) Assisting in infection control monitoring activities to include sanitation inspections of the hospital galley, ship's store and vending machines.

(3) Completing Disease Alert Reports (MED-6220-3), pursuant to reference (a).

(4) Initiating required reports to all official agencies.

(5) Maintaining liaison with all local hospitals and state health departments.

(6) Administer the Blood Borne Pathogen Exposure, Post Exposure Prophylaxis, Tuberculosis, Sexually Transmitted Disease, and Communicable Disease programs.

f. All Healthcare Providers shall:

(l) Promptly report all suspected nosocomial infections using the Infection Control Surveillance Report, enclosure (6), to the Infection Control Officer.

(2) Report all reportable diseases to the Infection Control Officer and Head, Preventive/Occupational Health Department, as per reference (a).

g. All Directors, Department Heads and Supervisors shall implement the provisions of this instruction and ensure that the Infection Control Surveillance Report, enclosure (6) is:

(l) Available to all staff members.

(2) Appropriately filled out, in the event of a possible nosocomial.

(3) Immediately sent to the Infection Control Officer in the Performance Improvement Department for follow-up.

h. Registered Nurse responsible for the patient shall report any actual or suspected infection and institute appropriate isolation procedures. When any of these actions are taken, the attending physician shall be notified.

i. All staff members shall be required to learn, understand and fully support the Command's Infection Control Program as outlined in enclosure (7). Infection control is a full-time job and demands prompt reporting and correction of problem areas before infections are transferred. Every person is a vital link in the infection control program and must share in the responsibilities for prevention of infections.

7. Applicability. This instruction is applicable for all personnel aboard Naval Hospital, Twentynine Palms, California.

8. New or Revised Forms. Infection Control Surveillance Report, NAVHOSP29PALMS Form 6220/10 (Rev. 8/94), has been adopted in accordance with this instruction and may be obtained in Central Files.

R. S. KAYLER

Distribution:
List A

DEPARTMENT OF THE NAVY
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IN REPLY REFER TO:
NAVHOSP29PALMSINST 6220.10C CH-1
Code 0901
29 April 1998

NAVAL HOSPITAL TWENTYNINE PALMS INSTRUCTION 6220.10C CHANGE TRANSMITTAL 1

From: Commanding Officer

Subj: INFECTION CONTROL PROGRAM

1. Purpose. To direct pen and ink changes to the basic directive.

2. Action

a. On page 1, delete the contents of paragraph 5 after the word “composition” up to and including “members” and insert the following. “The infection Control Committee is comprised of a Staff Physician with surgical privileges who will act as Chair; an Infection Control Officer, and the following members:”

b. On page 2, subparagraph 5h delete the word “Secretary” and insert “assistant” in lieu of.

3. Filing. This change transmittal will be filled immediately after the signature page of the basic instruction.

R. S. KAYLER

DISTRIBUTION:
List A

NOSOCOMIAL INFECTIONS-GENERAL CONSIDERATIONS

I. DEFINITION Nosocomial infection: a localized or systemic condition resulting form an adverse reaction to the presence of an infectious agent(s) or its toxin(s) not present or incubating at the time of admission to the health-care facility.

II. IMPORTANT CONSIDERATIONS

A. For the majority of bacterial nosocomial infections, the infection usually becomes evident 48 hours or more following admission; however, each infection must be assessed individually for evidence that links it to the health-care facility.

B. Classification of infection as nosocomial usually is based on a combination of clinical or laboratory data; supportive data (e. g., X-rays, pathology reports) may also be used as appropriate.

C. A physician’s/surgeon’s diagnosis of infection is an acceptable criterion, unless there is evidence to the contrary.

D. Preventability of an infection is not a consideration when determining whether it is nosocomial.

E. Surveillance definitions are not intended to be the reason for making treatment decisions.

F. Conditions that are not infectious:

1. Colonization-presence of organisms in or on a body site, but not causing clinical signs or symptoms of infection.

2. Inflammation-a condition that results from response to injury or stimulation by noninfectious agent.

III. SPECIAL SITUATIONS IN WHICH AN INFECTION IS CONSIDERED NOSOCOMIAL

A. Infection acquired in the health-care facility but not clinically evident until after discharge.

B. Infection in neonates resulting from passage through the birth canal.

IV. SPECIAL SITUATIONS IN WHICH AN INFECTION IS NOT CONSIDERED NOSOCOMIAL

A. Infection associated with a complication or extension of infection already present at the time of admission, unless a change in the pathogen or symptoms strongly suggest the acquisition of a new infection.

B. In infants, an infection known or proved to have been acquired transplacentally (e. g., cytomegalovirus, rubella), and becomes evident at or before 48 hours after birth.

NONSOCOMIAL PRIMARY BLOODSTREAM INFECTION

Definitions/criteria-Laboratory-confirmed bloodstream infection must meet one of the following criteria:

I. Recognized pathogen isolated from blood culture and pathogen is not related to infection at another site.*

II. One of the following: fever (>38 C), chills, or hypotension and at least one of the following:

A. Common skin contaminant (e. g., Diptheroids, Bacillus sp., Propionibacterium sp., coagulase-negative staphylococci) isolated from two blood cultures drawn on separate occasions and organism is not related to infection at another site.

B. Common skin contaminant isolated from at least one blood culture from patient with intravascular access device and physician institutes appropriate antimicrobial therapy.

C. Positive antigen test on blood (e. g., H. influenzae; S. pneumoniae; N. meningitidis; or Group B streptococci)** and organism is not related to infection at another site.

III. Patient $\leq$ 12 months of age has one of the following: fever (>38 C), hypothermia (<37 C), apnea, bradycardia and any of the following:

A. Common skin contaminant isolated from two blood cultures drawn on separate occasions.*

B. Common skin contaminant isolated from blood culture from patient with intravascular access device and physician institutes appropriate antimicrobial therapy.

C. Positive antigen test on blood (e. g., H. influenzae; S. pneumoniae; N. meningitidis; or Group B streptococci) and signs and symptoms and positive laboratory results are not related to an infection at another site.** and, pathogen is not related to infection at another site.

*Note: All intravascular device-associated bloodstream infections are classified as primary even if localized signs of infection

are present at the access site.

**By rapid diagnostic test (e. g., counter immunoelectrophoresis).

NOSOCOMIAL PNEUMONIA

DEFINITIONS/CRITERIA (DEFINED SEPARATELY FROM OTHER INFECTIONS OF THE LOWER RESPIRATORY TRACT)

Must meet one of the following criteria:

I. Rales or dullness to percussion on physical examination of chest ans any of the following criteria:

A. New onset of purulent sputum or change in character of sputum.

B. Organism isolated from blood culture.

C. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing or biopsy.

II. Chest radiographic examination shows new or progressive infiltrate, consolidation, cavitation or pleural effusion and any of the following:

A. New onset of purulent sputum or change in character of sputum.

B. Organism isolated from blood culture.

C. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy.

D. Isolation of virus or detection of viral antigen in respiratory secretions.

E. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgB) for pathogens.

F. Histopathologic evidence of pneumonia.

III. Patient $\leq$ 12 months of age has two of the following: apnea, tachypnea, bradycardia, wheezing, rhonchi or cough; and any of the following:

A. Increased production of respiratory secretions.

B. New onset of purulent sputum or change in character of sputum.

C. Organism isolated from blood culture.

D. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy.

E. Isolation of virus or detection of viral antigen in respiratory secretions.

F. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgB) for pathogen.

G. Histopathologic evidence of pneumonia.

IV. Patient $\leq$ 12 months of age has chest radiologic examination that shows new or progressive infiltrate, cavitation, consolidation or pleural effusion and any of the following:

A. Increased production of respiratory secretions.

B. New onset of purulent sputum or change in character of sputum.

C. Organism isolated from blood culture.

D. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy.

E. Isolation of virus or detection of viral antigen in respiratory secretions.

F. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgB) for pathogen.

G. Histopathologic evidence of pneumonia.

COMMON RISK FACTORS

The strongest risk factor for nosocomial pneumonia is mechanical or tracheal intubation (three- to 21-fold increase).

Patients Without Mechanical Ventilation
- -Chronic lung disease
- -Severity of illness/trauma
- -Upper abdominal or thoracic surgery
- -Duration of surgery
- -Age
- -Poor nutritional state or hyperbilirubinemia
- -Immunosuppressive therapy
- -Depressed level of consciousness
- -Impaired airway reflexes or difficulty handling secretions
- -Duration of hospitalization
- -Large volume aspiration
- -Nasoenteric tube
- -Neuromuscular disease
- -Male gender

Mechanically Ventilated Patients
- -Duration of mechanical ventilation
- -Chronic lung disease
- -Severity of lung disease
- -Age
- -Severe head trauma or intercranial pressure monitor
- -Barbiturate therapy after head trauma
- -Gross aspiration of gastric contents
- -Reintubation or self-extubation
- -Upper abdominal or thoracic surgery
- -Ventilator circuit changes at intervals of less than 48 hours
- -Supine head position
- -Fall-winter season
- -Prior antibiotic therapy
- -Nasoenteric tube
- -Bronchoscopy
- -Shock
- -Blunt trauma
- -Stress ulcer with macroscopic bleeding

COMMON ETIOLOGIC AGENTS
Pseudomonas sp., Enterobacter sp., S. aureus, Klebsiella sp., Acinetobacter sp., Legionella sp.

PREVENTION

I. General Measures

1. Handwashing

2. Aseptic technique for respiratory tract manipulation.

3. Proper disinfection and maintenance of respiratory equipment.

4. Avoid supine head position; elevate head of bed (30 to 45 degrees) for patients whenever possible.

5. Avoid drainage of ventilator tubing condensate toward the patient.

6. Ventilator circuit changes at intervals $\geq$ 48 hours.

7. Preserve gastric acidity; use nonalkalinizing gastric cytoprotective agent in patients at risk of stress bleeding.

8. Minimize use of antibiotics.

9. Optimize nutritional status of severely ill patients.

10. Decrease duration of immunosuppression (e. g., use of granulocyte colony stimulating factor.

11. Remove nasogastric tube when no longer needed.

12. Conduct surveillance for cases of pneumonia and give feedback to personnel.

II. Specific measures for selected infections

A. Legionnaires disease

1. Hyperchlorinate or super-heat hospital water system.

2. Routinely clean water-supply system.

3. Consider use of sterile water by immunosuppressed patients.

4. Properly design, place and maintain cooling towers.

B. Aspergillosis

1. Remove granulocytopenic patients from vicinity of construction.

2. Place severely granulocytopenic patients in a protected environment.

3. Have granulocytopenic patients wear a mask when leaving a protected environment.

4. Routinely maintain hospital air-handling systems and rooms of immunosuppressed patients.

C. Respiratory syncytial virus (RSV)

1. Consider routine preadmission screening of high-risk patients (e. g., < 2 years of age, congenital pulmonary/cardiac disease, immunosuppression).

2. Private rooms, cohorting of patients and nursing personnel during hospital outbreaks of RSV infection.

3. Wash hands; wear gloves; wear a gown.

D. Influenza

1. Vaccinate high-risk patients and their care providers before influenza season.

2. Use amantadine/rimantadine for chemoprophylaxis and treatment of patients and personnel during influenza A outbreaks.

NOSOCOMIAL URINARY TRACT INFECTIONS

DEFINITIONS/CRITERIA

SYMPTOMATIC UTI (MUST MEET ONE OF THE CRITERIA BELOW):

I. One of the following: fever (> 38 C), urgency, frequency, dysuria or suprapubic tenderness and a urine culture (obtained aseptically, e. g., by clean catch, bladder catheterization or suprapubic aspiration).

II. Two of the following: fever (> 38 C), urgency, frequency, dysuria, or suprapubic tenderness and any of the following:

A. Dipstick test positive for leukocyte esterase and/or nitrate.

B. Pyuria ($\geq$ 10 white blood cells [WBC]/ml or $\geq$ 3 WBCs/highpower field of unspun urine).

C. Organisms seen on gram stain of unspun urine.

D. Two urine cultures with repeated isolation of the same uropathogen (gram-negative bacteria or Staphylococcus saprophyticus) with $\geq$ 102 colonies/ml urine in nonvoided specimens.

E. Urine culture with $\geq$ 105 colonies/ml urine of single uropathogen in patient being treated with appropriate antimicrobial therapy.

F. Physician’s diagnosis.

G. Physician institutes appropriate antimicrobial therapy.

III. Patient $\leq$ 12 months of age has one of the following: fever (> 38 C), hypothermia (< 37 C), apnea, bradycardia, dysuria, lethargy or vomiting and urine culture of $\geq$ 105 colonies/ml urine with no more than two species of organisms.

IV. Patient $\leq$ 12 months of age has one of the following: fever (> 38 C), hypothermia (< 37 C), apnea, bradycardia, dysuria, lethargy or vomiting and any of the following:

A. Dipstick test positive for leukocyte esterase and/or nitrate.

B. Pyuria.

C. Organisms seen on gram stain of unspun urine.

D. Two urine cultures with repeated isolation of same uropathogen with $\geq$ 102 organisms/ml urine in nonvoided specimens.

E. Urine culture with $\leq$ 105 colonies/ml urine of a single uropathogen in patient being treated with appropriate antimicrobial therapy.

F. Physician's diagnosis.

G. Physician institutes appropriate antimicrobial therapy.

ASYMPTOMATIC BACTERIURIA (MUST MEET EITHER OF THE CRITERIA BELOW):

I. An indwelling urinary catheter is present within seven days before urine is cultured and patient has no fever (> 38 C), urgency, frequency, dysuria or suprapubic tenderness and has urine culture of $\geq$ 105 organisms/ml urine with no more than two species of organisms.

II. No indwelling urinary catheter is present within seven days before the first of two urine cultures with $\geq$ 105 organisms/ml urine of the same organism without more than two species of organisms, and patient has no fever (> 38 C), urgency, frequency, dysuria, or suprapubic tenderness.

COMMON RISK FACTORS

1. Indwelling urinary catheters (present in ~80 percent; per-day risk of bacteriuria 3 percent to 6 percent)

2. Urologic instrumentation

3. Advanced age

4. Female gender

5. Severe underlying illness

COMMON ETIOLOGIC AGENTS

E. coli, group D streptococci (e. g., enterococci), Pseudomonas aeruginosa, Klebsiella sp., Proteus mirabilis, Candida species, Enterobacter sp., S. epidermidis and S. aureus.

PREVENTION OF CATHETER-ASSOCIATED UTIs

1. Avoid catheterization.

2. Decrease duration of catheterization.

3. Use intermittent catheterization whenever possible.

4. Insert catheters aseptically.

5. Use closed sterile drainage systems.

6. Use condom catheters in cooperative male patients.

7. Maintain gravity drain at all times.

8. Separate infected and uninfected patients whenever possible.

NOSOCOMIAL SURGICAL-SITE INFECTIONS (SSIs)

DEFINITIONS/CRITERIA

Superficial incisional SSIs
Must meet the following criteria: Infection occurs within 30 days after the operative procedure and involves only skin or subcutaneous tissue of the incision, and at least one of the following is present:

1. Purulent drainage from the superficial incision.

2. Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision.

3. At least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness or heat-and superficial incision is deliberately opened by surgeon, unless culture of incision is negative.

4. Diagnosis of superficial incisional SSI by the surgeon or attending physician.

The following are not reported as superficial incisional SSI: stitch abscess (minimal inflammation and discharge confined to the points of suture penetration), infection of an episiotomy or a neonate’s circumcision site, infected burn wound, incisional SSI extending deep into the fascial and muscle layers (see deep incisional SSI).

Deep incisional SSIs
Must meet one of the following criteria: Infection occurs within 30 days after the operative procedure if no implant (defined as a nonhuman-derived implantable foreign body, e. g., prosthetic heart valve, joint prosthesis, nonhuman vascular graft) is left in place or within one year if implant is in place and the infection appears to be related to the operative procedure and infection involves deep soft tissues (e. g., fascial and muscle layers) of the incision, and at least one of the following is present:

1. Purulent drainage from the deep incision but not from the organ/space component of the surgical site.

2. A deep incision spontaneously dehisces or is deliberately

opened by a surgeon when the patient has at least one of the following signs or symptoms: fever (> 38 C), localized pain or tenderness, unless culture of the incision is negative.

3. An abscess or other evidence of infection involving the deep incision is found on direct examination, during reoperation or by histopathologic or radiologic examination.

4. Diagnosis of a deep incisional SSI by a surgeon or attending physician.

Organ/space SSIs
Involves any part of the anatomy (e. g., organs or spaces), other than the incision, opened or manipulated during the operative procedure.

SPECIFIC SITES OF ORGAN/SPACE SSIs

-Arterial or venous infection
-Breast abscess or mastitis
-Disc space
-Ear, mastoid
-Endometritis
-Endocarditis
-Eye, other than conjunctivitis
-Gastrointestinal
-Intra-abdominal, not specified elsewhere
-Intracranial, brain or dural infections abscess
-Joint or bursa
-Mediastinitis
-Meningitis or ventriculitis
-Myocarditis or pericarditis
-Oral cavity (mouth, tongue, or gums)
-Osteomyelitis
-Other infections of the lower respiratory tract
-Other infections of the urinary tract
-Other male or female reproductive tract
-Spinal abscess without meningitis
-Sinusitis
-Upper respiratory tract, pharyngitis
-Vaginal cuff

Organ/space SSIs must meet the following criteria: Infection occurs within 30 days after the operative procedure if no implant

is left in place or within one year if implant is left in place and the infection appears to be related to the operative procedure and infection involves any part of the anatomy (e. g., organs or spaces) other than the incision opened or manipulated during the operative procedure, and at least one of the following is present:

1. Purulent drainage from a drain that is placed through a stab wound* in the organ/space.

2. Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space.

3. An abscess or other evidence of infection involving the organ/space on direct examination, during reoperation or by histopathologic or radiologic examination.

4. Diagnosis of organ/space SSI by surgeon or attending physician.

SSI involving more than one specific site

1. Infection that involves both superficial and deep incision sites is classified as deep incisional SSI.

2. Occasionally an organ/space infection drains through the incision. Such infection generally does not involve reoperation and is considered a complication of the incision. It is therefore classified as a deep incisional SSI.

COMMON RISK FACTORS

1. ASA class >II

2. Duration of operation (>2 hours)

3. Surgical wound class other than “clean”

4. Positive intraoperative cultures

COMMON ETIOLOGIC AGENTS
Staphylococcus sp., E. coli, Enterobacter sp., Pseudomonas sp., and anaerobes (e. g., Bacteroides sp.) Particularly when gastrointestinal tract involved.

PREVENTION

1. Avoid shaving of hair at the operative site; hair removal by depilatory or clipping should be performed immediately before surgery.

2. Use a strict aseptic technique.

3. Use preoperative antibiotic prophylaxis for indicated procedures. (Note: Except for a few exceptions, e. g., C-section, antibiotics should be administered within two hours prior to incision.)

4. Optimize surgical technique (e. g., gentle handling of the tissue, elimination of dead space, avoidance of unnecessary drains, reduction of blood loss or hematoma formation).

5. Periodic reporting of surgeon-specific SSI data to the surgeons with aggregate comparative data for other surgeons.

6. Preoperative treatment of remote infections.

7. Control diabetes; markedly obese patients should lose weight; discontinue or decrease steroid dosages; improve nutrition of malnourished patients before elective surgery.

INFECTION CONTROL SURVEILLANCE REPORT

PATIENT_____
WARD/DEPT_____
SSN_____
RANK/SERVICE_____
PHYSICIAN_____
UNIT_____

HAS PATIENT BEEN ADMITTED WITHIN THE LAST 30 DAYS? YES__NO__

DIAGNOSIS_____

1. SITE OF INFECTION: (CIRCLE ONE)
    a. WOUND

    b. SKIN

    c. SYMPTOMATIC

    d. BURN

    e. URINARY TRACT

        (1) SYMPTOMATIC

        (2) ASYMPTOMATIC

    F. OTHER (INDICATE - IV, ENDOMETRITIS, BACTEREMIA, ETC.,)

2. CLASSIFICATION OF INFECTION: (CIRCLE ONE)

    a. CLEAN CASE: BECAME INFECTED

    b. UNCLEAN CASE: HAD POTENTIAL FOR INFECTION

    c. CONTAMINATED CASE

    d. INFECTED PRIOR TO ADMISSION/being seen

3. SURVEILLANCE NOTES (FOR USE BY INFECTION SURVEILLANCE OFFICER)

    a. SIGNIFICANT PROCEDURES DONE:
    b. TEMPERATURE ELEVATIONS:
    c. ANTIBIOTIC THERAPY:
    d. SIGNIFICANT LABORATORY DATA:

COMMENTS:

NAVHOSP29PALMS Form 6220/10
(Rev 8/94)

INFECTION CONTROL MANUAL

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Chapter 1

INFECTION CONTROL PROGRAM

1001. Purpose. To reduce transmitting communicable diseases between patients and medical personnel. Although nosocomial infections are generally considered to be a problem within patient care areas, communicable disease transmission is possible anywhere in a medical treatment facility. All staff personnel must take an active part identifying and eliminating conditions that contribute top disease transmission.

1002. Definitions

a. Bloodborne Pathogens. Pathogenic microorganisms present in human blood and can cause diseases in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

b. Colonization. The presence and growth of microorganisms in or on the host, but without any obvious clinical symptoms or recognized immune reaction at the time it is isolated.

c. Community Acquired Infection. Infection which is incubating or active prior to the patient's admission to the hospital or treatment in an ambulatory clinic, unless it can be traced to recent hospitalization or outpatient care. If the infection develops within 48 hours after admission or treatment in an outpatient clinic, and the incubation period is unknown, it is considered to be community acquired.

d. Communicable Disease. An illness caused directly or indirectly by a specific infectious agent or toxic product and transmission of that agent or its products from an infected person, animal, or inanimate object to a susceptible person.

e. Contamination. Infectious agents (either bacteria, viruses, or fungi) that are temporarily present on the body surface, without tissue invasion or physiological reaction. Contamination may refer to the presence of infectious agents on or in an inanimate object.

f. Infection. The entry, development, or multiplication of an infection agent in the body of man or animal. The result may be an evident clinical disease (infectious disease) or subclinical (inapparent infection).

g. Infection Control Program. The coordinated efforts of

all staff members to reduce the occurrence of nosocomial infections in medical treatment facilities. Administration of the program includes infection surveillance, education, and consultation.

h. Infectious Agent. An organism (virus, rickettsia, bacteria, fungus, protozoa, or helminth) that can produce an infection or infectious disease.

i. Infectious Disease. A clinically evident disease of man or animal resulting from an infection.

j. Nosocomial Infection. Infections that develop during hospitalization, or as a consequence outpatient medical care. Nosocomial infections may occur in anyone who has been in a hospital or clinic, whether they are involved with patient care or not. It is generally accepted that infections which are not present or incubating at the time of admission or treatment, and which develop more that 48 hours after admission or treatment, are considered nosocomial.

k. Perinatally Acquired Infection. Infections in newborns, which are acquired in the uterus or during labor, usually displaying symptoms within 48 hours of birth.

1003. Infection Surveillance

a. Introduction. Efficient infection surveillance is the basis for an effective infection control program. Surveillance activities include total-house surveillance and focused reviews. The rational supporting focused reviews is to target the nosocomial infections which have the greatest impact on adverse patient outcomes and which cause the greatest financial burden to the hospital. The following categories are subject to review when deemed appropriate by the ICO:

(l) Lower Respiratory Tract Infections (pnuemonias)

(2) Surgical Site Infections (SSI's)

(3) Bacteremias

(4) IV Phlebitis

(5) Urinary Tract Infections (UTI's)

(6) Endometritis

b. The time allotted for the ICO shall be delegated as follows: (a) surveillance, investigation, short reviews, data collection, and records 50%. (b) orientation, education of employees, policies reporting, and professional education 50%.

c. Sources of Information. Patients exposed to infectious agents in a medical treatment facility, and subsequently develop infections or communicable diseases, may not seek medical attention or may go elsewhere for treatment. Consequently, many infections may go undetected. This can be prevented to some extent with an aggressive surveillance program, which includes:

(l) Reviewing microbiology reports for positive cultures. A positive culture by itself does not mean that a nosocomial infection has occurred. The result must be investiga- ted to determine the circumstances, and evidence evaluated using definitions for nosocomial infections. The investigation should include consultation with any staff personnel who are familiar with the case.

(2) Using Infection Control Surveillance Report, enclosure (2), to document known or suspected infections or communicable diseases in patients or staff that may be the result of medical procedures or job related exposures in the medical treatment facility (MTF). These reports should be submitted to the ICO for follow-up.

(3) Advising patients to report all subsequent complica- tions or adverse conditions, including infections, that occur as a result of treatment they received at any MTF to their health care provider. This information should be recorded on the Infec- tion Control Surveillance Report form by the health care provider who sees the patient and then be forwarded to the ICO.

1004. Microbiological Surveillance

a. Culturing the Environment

(l) The occurrence of nosocomial infections has proven to be related to levels of general microbial contamination of the air or environmental surfaces.

(2) Microbiological sampling should be limited to evalu- ating high risk areas or equipment connected with outbreaks of infections or communicable diseases. Culturing should only take place after consulating the ICO and the Laboratory Department. Forward results to the ICO. The following are examples of equip- ment considered for environmental culturing:

(a) Steam autoclaves

(b) Physical Therapy whirlpool tanks

(c) Respiratory and anesthesia equipment

(d) Water and ice

b. Culturing Staff Personnel. Microbiological culturing of staff personnel (including anterior nares, skin lesions, rectum, hands, and stool specimens) would be limited to epidemiological investigations of infectious disease outbreaks.

c. Culturing Patients. Health care providers may order patient cultures for diagnostic or epidemiologic purposes.

1005. Reportable Diseases

a. Per reference (a), Disease Aslter Reports (DAR) must be submitted for diseases or disease outbreaks listed in reference (j).

b. Staff personnel must promptly report all confirmed or suspected reportable diseases, whether they originate in the hospital or community to the ICO. Reporting does not relieve staff personnel from beginning infection control measures.

c. Reportable diseases diagnosed, suspected,or treated must be reported to the Head, OH/PM Department as per reference (j).

d. The Head, OH/PM department is responsible for preparing DAR's and notifying local or state health agencies of reportable diseases.

1006. Employee Health

a. Introduction

(l) Due to increased exposure to disease in the patient care setting, personnel who work in MTF's have a higher risk of acquiring communicable diseases and are more likely to be contagious than people in the general population. It is imperative that staff personnel take proper precautions against communicable diseases.

(2) Precautions include immunizations, periodic medical screening, barriers against exposure to patients with known communicable diseases, standard precautions, and procedures to

prevent sharps injuries and mucosal exposure to bloodborne diseases. Preventing bloodborne pathogen exposure is further delineated in Chapter 7 of this Manual.

(3) Staff members exposed to communicable diseases must be evaluated and provided active or passive prophylaxis, as appropriate.

b. Immunizations and Periodic Medical Screening

(1) The immunologic status of all staff personnel must be reviewed and current before they are placed in positions where exposure to communicable diseases is likely. This is accomplished by:

(a) Reviewing medical records of military personnel reporting for duty to update their physical examinations, immunizations and their status with respect to communicable diseases.

(b) Screening all new civilian personnel (including students) to determine their status with respect to communicable diseases and immunizations.

(c) Immunologic status should be known for varicella, mumps, measles, rubella, hepatitis B, HIV, and other communicable diseases considered appropriate. The information will be based on documented medical history, immunization records, or serologic tests. Immunization of all civilian staff personnel must be augmented to conform to the requirements stated in reference (b).

(d) All staff immunizations and screening examinations must remain current.

c. Communicable Diseases in Staff Personnel

(l) Staff personnel who have a communicable disease, are known carriers, or have been exposed to communicable diseases must report to the Head, OH/PM Department for medical evaluation, treatment, or prophylaxis.

(2) The Head, OH/PM Department will determine the potential for transmitting the disease to others in the work environment and what restrictions, precautions, or additional testing is required.

1007. Viral Hepatitis

a. Hepatitis has been recognized a risk to personnel involved with health care. The term "viral hepatitis" or hepatitis is commonly used for at least three clinically similar diseases that are etiologically and epidemiologically distinct.

(l) Hepatitis A (HAV), formally called "infectious hepatitis", is transmitted by the fecal oral route.

(2) Hepatitis B (HBV), formally identified as "serum hepatitis", is transmitted by blood and body fluids.

(a) Health care personnel with frequent blood contact are at high risk of exposure.

(b) Despite conscientious medical attention and the availability of diagnostic screening procedures patients may not be identified.

(c) When a patient is not identified as a carrier, it is possible that exposed employees would not receive appropriate immunoprohylaxis.

(3) Hepatitis A through G, usually transmitted by blood in this country, is caused by one or more viruses.

b. All military personnel and civilian staff (including volunteers and students) in occupational situations characterized by frequent potential contact with human blood, blood products, or other body fluids must be vaccinated against Hepatitis B.

(l) This is a three (3) dose series.

(a) The second dose is given one month after the first and the third dose is given 5 months after the second, (0.1, and 6 months).

(b) Either plasma-derived hepatitis B vaccine or recombinant DNA hepatitis B vaccine may be used and interchanged during the 3 dose series.

(2) Post vaccination screening is not recommended by the Immunization Practices Advisory Committee (IPAC), Public Health Service. However, if it is done, the subject should be tested for antiHB's one month after the third dose is administered.

(3) Personnel who began, but did not complete the basic three dose series of either plasma-derived vaccine or recombinant

DNA vaccine according to the prescribed schedule, should follow the algorithm provided in Appendix A. Either plasma-derived vaccine or recombinant DNA vaccine may be used.

(4) Routine boosters of hepatitis B vaccine are not recommended.

(5) Side effects are minor and may include pain at the injection site and low grade fever.

(a) There is no evidence that plasma-derived Hepatitis B vaccines can transmit the Human Immunodeficiency Virus (HIV).

(b) HIV is inactivated in the plasma-derived hepatitis B manufacturing process and there are no blood or serum components in recombinant DNA Hepatitis B vaccine.

(6) The IPAC recommends that pregnancy not be considered a contraindication for using Hepatitis B vaccine in individuals who were otherwise eligible.

1008. Varicella-Zoster (Chicken Pox and Shingles)

a. Primary Varicella-Zoster (Chicken Pox) is a highly contagious disease with serious implications in MTF's.

(l) Susceptible immuno-compromised patients are particularly predisposed to such life threatening complications as encephalitis and pneumonia.

(2) The disease is endemic in the United States. The majority of the population are exposed and infected during childhood, resulting in life long immunity.

(3) A history of illness generally implies immunity. In the absence of a clear history of illness, immunity can be determined by a serum antibody titer.

(4) Respiratory secretions are infectious 1 to 2 days prior to onset of the lesions. Personnel exposed during that period of time must be informed of their exposure and evaluated for prior history of exposure or illness.

b. Shingles is caused by reactivation of latent Varicella (or Herpes) Zoster virus. The risk of disease transmission is less that of Chickenpox, but is still present. Susceptible individuals exposed to persons with shingles may develop classic Chickenpox.

c. Personnel with symptoms of Varicella-Zoster infection must be evaluated as soon as symptoms occur. Notify the Head, OH/PM Department for medical evaluation and contact investigations to identify patients and staff potentially exposed to the virus.

(l) Exposed Staff Members

(a) Susceptible, exposed staff members (both military and civilian) will be removed from direct patient care during the period of communicability (from the 7th through the 21st day following exposure).

(b) Shall be counseled on the signs and symptoms of Varicella-Zoster, potential complications (e.g., varicella encephalitis and pneumonia) and what restrictions apply to them.

(c) These personnel may be assigned administrative duties away from patient care areas, provided exposure to susceptible staff members can be avoided, until after the 21st day of exposure or recovery from Varicella-Zoster.

(d) The immunologic status of exposed staff members who do not develop clinical varicella should be determined 30 days after they return to work.

(2) Staff Members with Varicella-Zoster Infection (chickenpox or shingles).

(a) Personnel with Varicella-Zoster infection may not work during the period of illness; however, they may return to duty when all their lesions are crusted.

(b) Civilians should be sent home on sick leave. If an employee believes the illness is the result of an occupational exposure, they may apply for worker's compensation.

(c) Active duty personnel who live in the Bachelor Quarters (BQ), should be admitted to a hospital in private, negative pressure rooms until all lesions are crusted.

(d) Active duty personnel who do not live in the BQ may be placed on convalescent leave until all lesions are crusted.

(3) Exposed Patients. Patients exposed to Varicella-Zoster in the hospital should be notified and counseled concerning the symptoms and preventive measures.

d. Preventive Measures

(l) All hospital staff will be surveyed for history of varicella infection. Staff who do not have a definite recollection of infection will have a titer drawn to determine immune status.

(2) Hospital staff who do not have active immunity will be vaccinated according to current CDC guidelines.

(3) Initiate appropriate isolation procedures immediately when the diagnosis is made.

(a) PATIENTS WITH CHICKENPOX MUST WEAR A MASK WHEN OUTSIDE OF THEIR ROOMS.

(b) Patients suspected of having Varicella-Zoster will not wait in waiting rooms with other patients.

(4) The guidelines provided in Appendix B shall be implemented to prevent nosocomial spread of chickenpox (Varicella-Zoster virus).

1009. Herpes Simplex Infections

a. Herpes simplex virus (HSV) is transmitted by direct contact with primary or recurrent lesions, or by exposure to infectious body fluids, such as saliva and vaginal secretions and infected amniotic fluid, even when no lesions are apparent. Although many sites can become infected, exposed areas of skin are most likely to be involved, particularly when minor cuts, abrasions, or other skin lesions are present.

b. Transmission from Patients To Staff

(1) The most common form of HSV transmitted from patients to staff is Herpetic Whitlow (paronychia), a painful HSV infection of the fingers. This infection generally results from direct hand exposure to contaminated secretions, usually oral or respiratory and, less frequently, contaminated genital secretions and lesions of the skin or mucous membranes.

(2) Personnel can protect themselves from such infections by avoiding direct contact with lesions, wearing protective gloves on both hands for all contact with oral or vaginal secretions, and by thorough hand washing after patient contact.

c. Transmission from Staff to Patients

(l) Personnel with genital HSV lesions do not need to be restricted from direct patient contact. However, these individuals must practice good personal hygiene, particularly careful hand washing after touching their lesions.

(2) Personnel with Herpetic Whitlow must be removed from direct patient care until the lesions heal. It is not known whether wearing protective gloves prevents transmission to patients.

(3) Personnel with orofacial lesions need not be removed from direct patient care, however:

(a) They should not attend to high risk patients such as newborns, patients with severe malnutrition, severely burned patients, patients who are otherwise immuno-compromised.

(b) They must avoid touching their lesions and must wash their hands if they do.

1010. Meningococcal Meningitis

a. Nosocomial transmission of Neisseria Meningitis to health care personnel treating patients with meningococcemia, meningococcal meningitis, or lower respiratory infections is uncommon.

(l) The most likely mode of transmission from a person with these infections is by large droplet secretions.

(2) Hospital personnel who believe they have had significant exposure to the respiratory secretions of these patients should contact the Head, OH/PM Department immediately for evaluation.

b. Prophylaxis is indicated for those persons with very close direct contact with an infected patient, such as those who performed mouth-to-mouth resuscitation without a mask.

c. Rifampin is currently the drug of choice for chemoprophylaxis, although newer agents such as the quinoline antimicrobial agents may also be used. Chemoprophylaxis should begin immediately.

1011. Rubella Immunity Surveillance Program

a. Rubella (German Measles) is a mild, fever inducing, infectious, disease with a characteristic scattered punctuate and macular rash, sometimes resembling that of measles, scarlet

fever, or both. The congenital rubella syndrome occurs among 20% -25% of infants born to women who have rubella during the first trimester of pregnancy, with decreasing frequency thereafter.

b. Due to possible lost man hours and the implied risk of rubella in females of child bearing age, a program of rubella screening must be implemented.

(l) The Infection Control Committee will coordinate the Rubella Titer Surveillance Program.

(2) All staff personnel are required to have a test for rubella in the medical records.

(3) Personnel with a positive Virogen Rubella Slide Test or Hemagglutination Inhibition (HAI) (rubella) titer of 1:20 or less are considered to have active immunity to rubella.

(4) Personnel with a negative Virogen Rubella Slide Test or HAI (rubella) titer 1:10 or less are considered rubella susceptible and must receive the rubella virus vaccine, unless a documented medical contraindication is provided.

c. Immunization Requirements. All staff personnel reporting aboard will have a rubella titer drawn or receive the vaccine, when indicated.

(l) Males may receive vaccine at any time once the nonimmune status has been established.

(2) Females. Once the nonimmune status has been established, the following criteria must be met before rubella vaccine will be given:

(a) Member cannot be pregnant.

(b) Member must sign a waiver stating that, to the best of her knowledge, she is not pregnant and that she has been informed that she should not become pregnant within three months following immunization.

(3) Vaccine should not be given to personnel with an imundeficiency or on immunosuppressive therapy.

Chapter 2

GENERAL INFECTION CONTROL GUIDELINES

2001. Staff Personnel

a. Newly reporting personnel shall be oriented to Standard Precautions procedures and policies, including an Occupational Safety and Health Act (OSHA) approved Standard Precautions training program. This information shall be provided at the annual training update.

b. All military personnel, including medical treatment facility workers who are not members of the medical department, are required to receive annual PPD and be immunized according to reference (b).

c. All civilian personnel with a high risk of tuberculosis exposure will require annual screening by the Preventive Medicine/Occupational Health department.

d. All civilian personnel working in patient care must either receive the Hepatitis B vaccine or sign a waiver of declination. All military personnel must receive the Hepatitis B vaccine.

e. Personnel will not work when ill unless cleared by a health care provider. Medical clearance must be obtained for anyone with an upper respiratory or gastrointestinal infection.

f. Open lesions or cuts must be properly protected and covered. It is highly recommended that these personnel work in non patient care areas until the wound or lesion is healed.

g. All students, temporary civilian staff, and volunteers will receive training in the facility exposure control plan, infection control practices, and standard precautions policies and procedures.

2002. General Standards

a. Hands will be washed with soap and running water or germicidal cleanser at least one time per shift.

b. Linen and exam table paper will be changed between each patient. In addition, exam tables will be cleaned with an appropriate germicidal cleanser between patients.

c. Soiled linen will be placed in a covered linen hamper. The soiled linen room shall be secured when not in use.

d. Offices and examination rooms will be cleaned weekly with an approved disinfectant, including exam tables, exam lights, scales, electronic thermometers (IVAC's), x-ray view box, wall mounted oto-ophthalmoscopes, and general office equipment.

e. All sterile items will be checked weekly for expiration.

f. Instruments will be soaked after each use with an approved disinfectant, rinsed, bagged and returned to the Central Processing Department (CPD) for final disinfection and sterilization.

g. Only sterile supplies (i.e., gloves, instruments, drapes, and dressings) will be used when caring for wounds and lacerations.

h. Disposable items will not be reused.

i. Pre-sterilized, prepackaged items will be routinely checked prior to use for damages to the package. Items will be discarded if damaged.

j. Rubber bands will not be placed around paper packaged sterile supplies, since banding tends to cut into the paper, damaging the packaging.

k. Check medications for expiration prior to use.

l. Trash cans will be lined with plastic bags.

(l) Trash cans in patient care areas will be covered.

(2) Red plastic bags will be used for contaminated or infectious waste material.

2003. Handwashing

a. Handwashing is to prevent transmission of infection to the patient, staff members, or from one part of the patient's body to another.

b. Handwashing is the single most important procedure to prevent infections. Routine handwashing with soap and running water will remove foreign matter, including temporarily acquired microorganisms.

c. Hands should be washed before and after patient contact, prior to and following breaks and meals, and after use of rest rooms.

d. Proper Handwashing Procedure

(1) Wet hands and wrists.

(2) Apply soap to hands and wrists.

(3) Scrub hands and wrists, including between fingers, for at least 15 seconds.

(4) Clean under fingernails.

(5) Rinse under running water.

(6) Dry hands with paper towels.

(7) Use paper towel to turn off water.

(8) Discard towels.

e. Important Handwashing Points to Remember

(l) Because sinks are common reservoirs for pseudomonas and other pathogenic bacteria, frequent cleaning of these areas is essential.

(2) Disposable paper towels should be located adjacent to every handwashing facility.

(3) Jewelry should be removed prior to handwashing.

(4) Bar soap shall not be used.

2004. Minor Surgery

a. Preventing contamination when preparing the patient

(1) Prevent staff clothing from touching patient.

(2) Use protective gloves when septically contaminated areas must be touched or when removing dressings or drains.

(3) Wash hands before and after contact with each patient.

b. During the procedure

(1) Prevent contamination of hands and clothing.

(2) Touch nothing in the operative field with bare hands.

(3) Handle contaminated drapes, with gloved hands, by outer edges, staying away from wet areas, fold covering the contaminated portion, then put directly into the soiled linen hamper or infectious waste container, as appropriate.

(4) Should the outside of the specimen container become contaminated, wipe with disinfected germicide before removing from the room. Protective gloves should be worn during this procedure.

(5) When cultures are required, pass only the cotton swab from the culturette to the operating room technician. Keep the container sterile. The operating room technician will insert the used swab into the container.

(6) Use the following procedures to prevent organisms from spreading from the field to the room, the equipment, or to areas outside the room:

(a) Immediately pick up suture ends, needles, sponges, instruments, etc., that drop to the deck with forceps or gloved hands.

(b) Immediately wipe areas of the deck, bulkhead, or furniture that become contaminated using a spray bottle of detergent germicide and cleaning cloth.

(c) Clean instruments and equipment that have been dropped from the field during a procedure in detergent germicide, and then place in the breakdown tray.

(d) Control traffic in and out of the room. Keep the number of people in the room to a minimum.

(e) Avoid unnecessary talking and movement, especially over the operative site.

(f) Do not allow the linen bag to become over-loaded, replace with a clean bag when necessary.

(7) Prevent contamination of personnel and areas outside the field by:

(a) Keeping all sterile articles used during the procedure on the draped back table area or Mayo stand.

(b) Removing the skin knife and any instruments or articles that become contaminated from the sterile field.

(c) Collecting suture ends and other waste in either a suture pan or sterile paper bag on the field or in a kick bucket off of the sterile field.

(d) Removing gloves without touching the outside of them.

(e) Covering the wound with a sterile dressing, when appropriate.

c. After the procedure:

(l) Remove drapes, with gloved hands, and discard into linen hamper or infectious waste container, as appropriate.

(2) Discard opened expendable items.

(3) All contaminated instruments shall be soaked in a germicidal detergent, rinsed, bagged or contained, and returned to the Central Processing Department (CPD) for disinfection and sterilization.

(4) Clean the room in the following manner.

(a) Remove contaminated linen and place in hamper.

(b) Properly dispose of all disposables.

(c) Wipe all surfaces with disinfectant.

2005. Blood Precautions

a. Purpose. To prevent cross infection of patients and personnel from infections transmitted by contact with blood or items contaminated with blood, all blood must be considered contaminated.

b. General Precautions

(l) Disposable supplies and equipment should be used whenever possible.

(2) Protective gloves are to be worn whenever handling blood, blood products, articles contaminated with blood, or newborns prior to their first bath.

(3) Contaminated disposable supplies and equipment should be placed in red bags. Contaminated instruments shall be soaked in a germicidal detergent, rinsed, bagged and returned to the CSSR for disinfection and sterilization.

2006. Needle and Syringe Guidelines

a. After a needle and syringe have been used, the person using the equipment is responsible for its safe disposition.

b. To prevent needle stick injuries or aerosol contamination USED NEEDLES SHALL NEVER BE RECAPPED, BENT, OR BROKEN.

c. Used sharps are to be placed in biohazardous labeled rigid containers, which will be closed when 3/4 full, and taken to the biohazardous storage shed. These containers must also be labeled with the producer's name, address and phone number on the outside of the container. Refer to Chapter 5 for additional guidance.

2007. Accidental Sharps or Mucosal Exposure to Blood

a. Sharps injuries and mucosal exposures can result in HIV or HBV infection.

(1) Most sharps injuries and mucosal exposures occur in the process of drawing blood specimens, administering injections, or processing laboratory specimens.

(2) All staff personnel must comply with the procedures addressed in this manual for discarding sharps and wearing personal protective gear to reduce the risks of mucosal exposure to blood.

b. Preventive Measures

(l) Handle needles, syringes, and sharps with extreme caution to prevent accidental cuts, spills, or spraying.

(a) In those RARE circumstances when recapping is unavoidable, the one-hand scoop method must be used. Discard all sharps into rigid and impervious containers designed for sharps disposal.

(b) Never force a needle or blade into a sharps container. Sharps containers must be labeled clearly with the universal symbol or the words "BIOHAZARD".

(2) Under standard precautions, all patients' blood specimens are considered infectious.

(a) Staff personnel must wear protective gloves for all anticipated exposures to blood or body fluids.

(b) Additional protective gear or equipment including gowns, masks, and eye coverings must be worn whenever there is a likelihood that blood may be sprayed or splattered such as performing certain invasive, obstetrical, or laboratory procedures.

(3) Always wash hands before and after contact with patients, even if protective gloves are used. Hands must be washed immediately with soap and water following contact with blood or body fluids.

(4) Never force blood from a needle containing a clot. This action may cause the blood to spray resulting in mucosal exposure.

(5) Transport all laboratory specimens in a closed leakproof container, i.e., ziplock baggies, plastic specimen containers.

(6) Utilize the needleless IV system and protective IV needle system as the first choice for patient care.

2008. Management of Accidental Sharps Injuries and Mucosal Exposure to Blood

a. All patients are potentially infected with HIV, viral hepatitis or other blood-borne pathogens. Therefore, whenever possible, rapid establishment of the infective status of the source patient is a first priority after an accidental sharps injury or mucosal exposure.

b. When precautions are violated or an accident occurs, and a health care worker has a parenteral (e.g., needle stick or cut) or mucous membrane (e.g., splash to the eye or mouth) exposure to blood or other body fluids, there is a possibility of contracting viral hepatitis or HIV.

c. The injured staff member military and civilian, shall

notify their supervisor immediately when an accidental puncture, laceration, or mucous membrane exposure occurs and report promptly to the Occupational Health Nurse during normal working hours and the Emergency Department after normal working hours for evaluation, treatment, and post exposure prophylaxis.

(l) The attending medical provider shall determine whether the sharp involved was contaminated or not.

d. Puncture wounds resulting from needles that have not been used on patients or for blood products do not normally require special care beyond cleansing and a single booster injection of tetanus toxoid, if indicated.

e. Puncture wounds caused by used sharps from patients whose HBV or HIV status is unknown shall be cleaned and evaluated to determine if there is a need for tetanus prophylaxis, post exposure prophylaxis, or hepatitis B immune globulin (HBIG). Refer to Appendix C for additional guidance.

f. Personnel with puncture wounds with sharps associated with patients known to have HBV or HIV shall be evaluated and treated as indicated in Appendix C.

g. The injured staff member or their immediate supervisor shall complete an Quality of Care Review (QCR), NH29PALMS Form 6010/08, (Appendix A and submit it to the Risk Manager/PI Department within one work day. NO COPIES ARE TO BE MADE. The injured staff member or their immediate supervisor shall also complete a Mishap Report, NH29PALMS Form 5100/06, (Appendix B) and submit it to the Safety Manager within one work day.

2009. Administrative Intravenous (IV) Fluids

a. To maintain asepsis, wash hands thoroughly before starting an IV. Protective gloves shall be worn when starting IV's.

b. All IV bottles and bags should be inspected carefully for cracks, haze, turbidity, precipitate, expiration date, or other signs which would indicate possible contamination.

c. The skin over the venipuncture site will be prepped with betadine solution and allowed to air dry. If the patient has an allergy or sensitivity to iodine solutions, the 70% isopropyl alcohol may be used. Venipuncture sites should not be shaved.

d. Tape the catheter hub securely using either the chevron or "H-bar" method to prevent slippage. Cover the insertion site

with a sterile "opsite" dressing or a similar transparent covering that allows for visual inspection, no bandaids shall be used. Use of antibacterial ointment is not recommended.

e. Opened IV fluid setups should not be left hanging more than 24 hours.

f. Evaluate the IV site at least daily for evidence of complications. Touch the insertion site through the intact dressing for swelling. If a patient has a fever, pain, or tenderness, change the IV site. Change the entire IV (cannula, administration set, and fluid) immediately if purulent thrombo-phlebitis, cellulitis, or IV related bacteremia is evident or strongly suspected. An Quality of Care Review (QCR), NH29PALMS Form 6010/08, must be completed and submitted to the Risk Manager/Infection Control Nurse/PI Department within one work day. No copies shall be made.

g. Maintenance

(l) Replace the cannula and change the dressing every 72 hours. This includes Heparin Locks. Ensure consistency.

(2) Peripheral cannulas may be used longer than 72 hours, if another peripheral site cannot be found and there is no evidence of inflammation or phlebitis. Patients less than eight years of age may retain peripheral intravenous (IV's) catheters or needles, and Heparin Locks longer than 72 hours. If this option is used, an order must be written, as well as a nursing note documenting the site's condition every shift.

(3) Replace cannulas inserted in the field or without proper asepsis, such as those inserted in an emergency, as soon as possible.

(4) IV tubing shall be changed every 72 hours at a minimum and more frequently as listed below:

(a) Replace tubing after administration of blood and blood products.

(b) Change tubing, infusion sets, and containers used for lipid emulsion administration every 24 hours.

(c) Replace the arterial pressure monitoring delivery systems every 48 hours.

(d) Change the entire IV system (IV fluid, administration set, and cannula), when an infusion related septicemia is suspected.

(5) Maintain the IV system as a closed system, as much as possible, between changes of components. Make all insertions into the tubing through site disinfected with an alcohol swab and avoid flushing or irrigating the system to improve flow.

h. Documentation

(l) Record the date that the IV was inserted and the size of the catheter used on the dressing tape. If this site is not convenient, place the date on the IV tubing.

(2) Record the date that the dressing or IV tubing was changed and the initials of the person who performed the change.

(3) Document the date, time, type and size of the IV catheter in the patient's chart after insertion. Note the same information and the condition of the site after dressing or site changes.

(4) Document the date and time tubing was initiated, and date and time tubing is to be replaced.

(5) Document appearance of IV site in the Nurse's Notes at least every 24 hours.

(6) Intravenous insertion sites will be checked every one hour for signs of any complications of intravenous therapy. Intravenous insertion sites will be visible.

2010. IV Associated Sepsis Procedures

a. Culture any purulent drainage around the catheter site prior to cleansing the skin.

b. If IV solution contamination is suspected, cap the end of the tubing with a capped, sterile needle and send the entire IV setup and solution container to the laboratory for culture. Do not disconnect any part of the setup. The laboratory will not culture IV systems, without prior approval of the Infection Control Committee Chairman or Director, Medical Services. Record observations and actions in the clinical record.

2011. Guidelines for Sterile Fluids

a. All irrigation fluids will be labeled with date and time when opened.

b. All fluids should be discarded 24 hours after opening. Undated opened bottles will be discarded immediately.

c. To prevent contamination, partially full bottles will not be "topped off" with others.

d. Bottles will remain capped at all times when not in use.

2012. Urinary Catheterization

a. Introduction

(l) The most common site of nosocomial infection is the urinary tract.

(a) Urinary tract infections (UTI's) cause approximately 40 percent of all hospital acquired UTI's.

(b) Nearly 75 percent of these patients have undergone some form of urological procedure, often urinary catheterization prior to their infection.

(c) Not all catheter associated UTI's can be prevented, many can be avoided.

(2) The risk of bacteriuria associated with a urinary catheter depends upon insertion techniques, the quality of catheter care, and the duration of catheterization. Without benefit of a closed collecting system most patients developed bacteriuria within 48 hours.

(3) Catheter associated UTI's are caused by bacteria acquired from several sources.

(a) Microorganisms that inhabit the distal urethra may be introduced into the bladder during, or shortly after, insertion of a urinary catheter.

(b) UTI's are most commonly caused by gastrointestinal associated bacteria such as E. coli, Klebsiella sp., Proteus sp., Enterococci sp.(group D Streptococci), Pseudomonas aeruginosa, Candida species, Enterobacter sp., S. epidermidis, and S. Aureus.

(c) Many other infections may be obtained from bacteria transmitted from patient to patient on the hands of hospital personnel.

(d) Common sites of entry include the urethral meatal junction, the catheter drainage tube junction, and the collecting vessel or bag.

(4) Use of a closed urinary drainage system is essential to reduce the risks of UTI's. This requires the active cooperation of everyone, including the patient. While the principles of a closed drainage system are simple, they must be followed closely.

b. Closed Urinary Drainage. Indwelling urinary catheters should be used only when absolutely necessary and should be discontinued as soon as possible. When they are used, a sterile continuously closed drainage system must be maintained.

c. Handwashing. Hands must be washed immediately before and after handling the catheter site or apparatus.

d. Insertion. Only trained, competent personnel will be allowed to insert urinary catheters, using proper aseptic technique. Catheters will be secured to prevent catheter movement or extraction.

e. Perineal Care. The meatal catheter junction should be cleaned with soap and water and inspected daily to assess the need for additional perineal care. If the patient is a female, the perineal area should be cleansed from the front to the back (anterior to posterior).

f. Catheter Movement

(l) Never disconnect the urinary catheter or the drainage tube, thus opening the closed system, unless necessary for irrigating and obstructed catheter. Gently milking the drainage tube will often unplug the catheter and make irrigation unnecessary. Should this fail, disinfect the catheter tubing junction, open the collection system and irrigate the catheter using aseptic technique. Use a large volume sterile syringe and sterile irrigating fluid for irrigation. If frequent irrigation is necessary to ensure catheter patency, use a triple opening catheter permitting continuous irrigation within a closed system. Both options require a written physician's order.

(2) Obtain small volumes of fresh urine for culturing from the sample port on the catheter. Use a sterile syringe and 21 gauge needle. Disinfect the sample port with iodine or isopropyl alcohol before obtaining the sample.

(3) Maintain the air chamber that connects the drainage tubing to the drainage bag in a vertical upright position.

(4) Maintain an unobstructed downhill flow. This requires emptying the collection bag regularly, keeping the tubing from becoming kinked, and replacing poorly functioning or obstructed catheters. Collection bags must always remain below the level of the bladder.

(5) Immediately replace all closed systems which may have become contaminated by improper handling, accidental disconnection, leaks, or other malfunctions.

(6) Routine catheter changes are not necessary in patients with urinary catheters inserted for less than two weeks duration, unless obstructions, contamination, or other malfunctions occur. Replace catheters in patients with chronic indwelling catheters, when sediment can be palpated in the catheter or when malfunctions or obstructions occur.

g. Training. Inservice training must occur periodically for personnel who care for catheterized patients. Patients with catheters must be instructed about recommended catheter care.

2013. Medical Refrigerators

a. All refrigerators containing medications must contain a thermometer and a temperature log. The temperature will be read and recorded each shift.

b. The acceptable temperature zone is between 35 to 46 degrees Fahrenheit. If the temperature is not in the acceptable zone, then the temperature will be adjusted accordingly. Follow-up readings will be done four and eight hours after adjustment.

c. If the adjustment fails, all items must be removed to another unit.

d. Only medications will be kept in the medication refrigerators. Food or other similar items are strictly prohibited.

2014. Specific Equipment and Cleaning Guidelines

a. Sterile supplies will be stored in clean, dry, closed shelving, monitored weekly for expiration, and used on a "first in and first out" basis.

b. Resuscitation and oxygen equipment filters will be changed quarterly. Oxygen tubing will be kept in sealed plastic bags and not reused.

c. Gurneys and wheelchairs will be wiped down with a disinfectant solution weekly and when contaminated.

d. Food and Drug Refrigerators

(1) Clean all areas with a disinfectant solution.

(2) Clean weekly.

e. Electronic Thermometers

(l) Electronic oral thermometers should have two probes, rectal (red) and oral (blue). Use a new disposable plastic sheath for each temperature taken and wipe the cord with an alcohol swab.

(2) Ear thermometers have one probe. Use a new disposable plastic sheath for each temperature taken. Ear thermometer surfaces, excluding black window in probe tip, should be cleaned only with a soft, clean cloth dampened with isopropyl alcohol (70% or greater concentration). Stronger agents or solvents may damage plastic components and should NOT be used. Check black window in probe tip for presence of ear wax or other debris. If dirty, gently clean using a lens wipe or tissue. NEVER clean black window with isopropyl alcohol or other solvents.

(3) Thermometers used in isolation rooms should remain in the patient's room, until their discharge from the hospital.

f. Blood Pressure Cuffs. Soiled cuffs will be cleaned using germicidal solution immediately after use.

g. Laryngoscopes. Handles will be wiped with 70% isopropyl alcohol, after each use.

2015. Ice machine/Good Service/Sanitation

a. Contaminated ice is a source for enteric disease. All ice must be manufactured, stored, and served in a germ-free

manner. Guidelines for operating of ice making machines are addressed in reference (c). Specific guidelines are as follows:

(1) Manufacture ice from potable water only, and handle all ice in a germ-free manner.

(2) Use ice scoops to remove ice from ice storage compartments. Store the scoops in brackets installed in the ice compartments above the level of the ice or outside the machine in a free draining storage compartment. Ice scoops shall be washed, rinsed, and sanitized daily.

(3) Clean ice machines as needed in accordance with the manufacturers' instructions.

(4) The Occupational Health/Preventive Medicine Department will sample ice from all ice machines monthly for coliform bacteria per reference (c).

b. Although food is usually considered in its relation to the preservation of good health, it may at times be injurious to health, goods of animal origin (meats, eggs, milk, etc.,) most frequently provide the vehicles for transmission of foodborne illness.

(l) The hospital galley will be inspected twice each month pursuant to reference (c).

(2) The ship's store and hospital vending machines will be inspected monthly pursuant to reference (c).

(3) The Occupational Health/Preventive Medicine Department will conduct all sanitation inspections.

Chapter 3

LABORATORY PROCEDURE

3001. Purpose. To provide laboratory staff with clear, lab specific guidelines, methods and procedures regarding infection control and handling of biohazardous/infectious waste.

3002. Background. Safe handling, storage, and disposal of potentially infectious agents is essential to safe laboratory operation. Joint Commission for the Accreditation of Health Organizations (JCAHO), College of American Pathologists (CAP), the Food and Drug Administration (FDA), and Occupational Safety and Health Administration (OSHA) all require hospitals and laboratories to develop and implement appropriate infection control procedures and infectious waste handling guidelines and methods. These accrediting and inspection agencies guidelines must be met if the laboratory and the hospital is to provide an acceptable community standard of care and insure staff and patients have a safe environment and to reduce absolute minimum the potential for spread of disease.

3003. Laboratory Access and Traffic

a. Laboratory Staff, Supply Personnel, Service & Maintenance Personnel. Access is not restricted nor is escort required, but they should be monitored for policy violations.

b. Administrative and Clerical Staff. Restricted to administrative areas and lounge, must check in upon arrival and should be escorted when in the performance of their duty.

c. Patients. Generally restricted to Venipuncture Room. Must be escorted whenever in general laboratory area. Restricted to visiting administrative offices or being provided educational tours of selected areas.

3004. Action

a. Command Infection Control Committee shall review and approve Laboratory Infection Control procedures.

b. Command Infection Control Nurse shall conduct regular inspections of the laboratory areas for compliance to the policies and procedures.

c. Head, Laboratory Department shall:

(l) Implement, review, monitor and enforce compliance of the policies and procedures.

(2) Ensure all laboratory staff receive adequate training is conducted and documented on infection/biohazardous subjects.

(a) All personnel when initially assigned to the department will be required to review these procedures as part of initial orientation to the laboratory. This will be documented in the person's laboratory check in sheet and kept on file.

(b) Continuing inservice training on an infection control or biological waste handling topic will be given for all personnel on a regular basis, minimum of one (l) session monthly. Copy of the training documentation with roster of personnel attending will be forwarded to the Infection Control Nurse.

d. Laboratory Department Personnel shall:

(l) Follow infection control guidelines and procedures.

(2) Report situations or incidents which may compromise the intent of procedures or policies.

(3) Wear laboratory coats or jackets when working with laboratory spaces.

(a) Soiled coats and jackets must not be worn outside laboratory spaces.

(b) All laboratory coats and jackets shall be maintained in a neat, clean manner.

(c) Laboratory coats, jackets and other reusable personnel protective clothing shall not be removed from the hospital by the staff member. Laundering services shall be provided by Operating Management Department.

(4) Comply with handwashing policies.

(a) Staff who have handled any specimens are required to wash their hands when leaving the laboratory.

(b) Handwashing shall be done before consuming any food or drink in the lounge.

(c) While handwashing is not required between

patients when obtaining venipuncture specimens, phlebotomists shall both change gloves and wash hands whenever the gloves become soiled after performing sample collection on a patient who appears to have a skin infection or rash on the hands or arms.

(5) Shall wear gloves when performing venipunctures or processing body fluid specimens or microbiological samples.

(a) Gloves are not required to be sterile but must be of latex construction and fit properly.

(b) Gloves do not need to be change between patients unless they become soiled or following contact with a patient with skin infection or rash.

(c) Exception. If phlebotomists firmly do not believe they can obtain the specimen while using gloves they may either request assistance from another technician or refer the patient back to the ordering health care provider. No attempt shall be made to obtain the sample without the use of gloves.

(6) Do NOT draw a specimen without gloves under any circumstances where:

(a) The patient is uncooperative.

(b) A capillary puncture technique is used.

(c) By technicians with less than six months experience.

(d) The technician has any scratches, cuts or skin rash on hands.

(7) Examine, clean with alcohol (or other approved skin disinfectant) and dry with a sterile gauze sponge the patient's arm when obtaining venipuncture samples.

(8) Do NOT eat, drink or apply cosmetics in any laboratory area where specimens, chemicals, or reagents are used.

(a) The only places where food or drink may be consumed in the laboratory are the administrative offices and the lounge.

(b) Food may be stored only in refrigerators marked "FOR FOOD ONLY".

(9) Be discouraged in wearing contact lenses within the laboratory as they pose a slightly increased risk of eye infection. Under no condition shall contacts be placed in the eye while in any laboratory work area.

(10) Handle specimens as listed below:

(a) Vacuum tube stoppers shall be removed with a gentle twisting motion, opening the tube away from the body to minimize aerosol hazards. NEVER "pop" or quickly remove the top from a vacuum type tube or other container.

(b) Ejecting samples from a syringe into a tube or secondary container shall be accomplished by first removing needle, then gently expressing the contents down the side of the container. This shall include vacuum tubes, which first must have the top removed to release the vacuum.

(c) Mouth pipetting or establishing a suction by mouth is strictly prohibited.

(d) Protective eyeware and mask shall be worn whenever there is a high risk that the technician's mucous membranes may come in contact with a body fluid or microbiological sample such as tissue grinding.

3005. Spills and Decontamination

a. Decontaminating equipment or instruments. Decontamination shall be accomplished with a 1:10 bleach solution (1 to 10 dilution of commercial 5% Sodium Hypochlorite solution, i.e., 0.5% NaCl0 soln.).

(l) All equipment or instruments leaving the laboratory whether for repair, maintenance, disposal or other reason shall be decontaminated before it is permitted outside of the laboratory spaces.

(2) Consumable items such as blood tubes, collection cups and swabs, and slides are exempt from this criteria as long as they have not been visibly contaminated.

b. Blood or body fluid spill on floors, walls, counter tops, and phlebotomy chairs shall be cleaned and disinfected immediately after they occur or as soon as noticed.

(l) Spills of blood or other body fluids of less than 20 mL., may be cleaned by using the 1:10 bleach solution and paper towels or gauze.

(2) Spills of greater than 20 mL., and contaminated microbiological spills will be cleaned and disinfected using biohazard spill kits in accordance with laboratory procedure on the use of these kits.

c. Laboratory Counter Tops will be cleaned daily and disinfected with a 1:10 bleach solution, regardless of whether a spill has taken place.

3006. Laboratory Biological Waste Disposal

a. Urine Samples and Patient Vomitus may be disposed of in the sanitary sewer.

b. Patient Blood or other Body Fluids Specimens and Microbiological Waste shall be disposed of in a properly identified container, double lined with red or orange biohazard bags.

(l) Containers shall be kept closed except when actually depositing specimens.

(2) No sharp objects shall be placed in these bags. The bags shall be changed daily.

(3) Infectious waste is to be removed Monday through Friday by transporting all bags and containers to the infectious waste holding shed.

(4) All bags and containers will be intact and non-leaking.

(5) Each bag or container must be labeled with laboratory as site of origin.

(6) Movement of the waste shall be made in a closed container.

Chapter 4

ISOLATION

4001. Purpose. To publish policies and procedures for patient isolation and to prevent the spread of communicable diseases in the inpatient setting.

4002. Background. Isolation precautions prevent the spread of communicable diseases of microorganisms among patients, staff, and visitors. The decision of which disease to isolate and which category of isolation to use is based on the source of infection, mode of transmission, and the presence of susceptible hosts.

a. Source. The source of the infecting agent may be patients, staff, or visitors. This may include persons with acute disease, persons in the incubation period of the disease or persons who are colonized by the infectious agent but who have no apparent disease (carriers). Other sources include the person's own bacteria and contaminated objects in the environment, including equipment and medications.

b. Mode of Transmission. Microorganisms are transmitted by various routes. In some cases, a microorganism may be transmitted by more than one route. For example Varicella-Zoster virus can be spread by airborne route (droplet nuclei) or by direct contact. The difference in potency and transmission modes of the various agents are the basis for the differences in isolation precautions. There are four main routes of transmission including contact, vehicle, airborne, and vector-borne.

(l) Contact transmission is the most common means of transmitting nosocomial infections. It includes direct contact with the source, indirect contact with an intermediate object such as fomites, and droplet contact produced by sneezing or coughing, usually occurring within three feet of the source.

(2) The vehicle route applies to diseases transmitted through contaminated items such as food, water, drugs, and blood.

(3) Airborne transmission occurs by spreading of either droplet nuclei (residue of evaporated droplets that may remain in the air for long periods of time) or dust particles in the air containing the infectious agent. Organisms carried in this manner can be inhaled by, or deposited on, the susceptible host.

(4) Vector-borne refers to transmission by other organisms, primarily insects. Mosquito transmitted malaria is an example. Vector-borne transmission is of little significance in U. S. hospitals; however, they can be a problem in military field hospitals and outside the continental United States.

c. Host

(l) Resistance to pathogenic microorganisms varies greatly. Some may be immune to or able to resist colonization by an infectious agent, others exposed to the same agent may establish a symbiotic relationship with the infecting organism and become asymptomatic carriers, and still others may develop the clinical disease. Persons with diabetes mellitus, lymphoma, leukemia neoplasia, granulocytopenia, or uremia and those treated with certain antimicrobial, corticosteroids, irradiation, or immunosuppressive agents may be particularly prone to infection. Age, chronic debilitating disease, shock, coma, traumatic injury, or surgical procedures also make a person more susceptible.

(2) Since agent and host factors are more difficult to control, actions to break the chain of infection are directed primarily at the mode of transmission.

4003. General Principles

a. Contagious or potentially contagious patients should be placed in isolation rooms.

(l) Placing more than one patient in a room is unacceptable, unless both patients have the same disease.

(2) These principles also apply to patients requiring protection from other people or the environment.

b. Handwashing before and after contact with each patient is the single most important means of preventing the spread of infection.

c. If indicated, gowns must be worn in isolation areas and placed into proper receptacles for laundering or disposal before leaving the isolation area.

d. Masks are single use items and must be discarded when leaving the isolation area. Masks should be replaced when moist. Masks shouldn't be worn around the neck or under the chin.

e. Protective gloves must be changed after each patient and discarded before leaving the isolation room. Gloves should be changed immediately after direct contact with the patients' infectious secretions or excretions. Ample supplies of gloves should be readily available.

f. Sphygmomanometers and stethoscopes should be kept in the isolation rooms during the patients' stay, if warranted.

g. Needles, syringes, and other sharps must be handled with extreme caution to prevent exposure to bloodborne diseases, such as HIV and hepatitis B. Never recap, clip, cut, bend or otherwise manipulate needles and syringes. Place unused sharps in containers designated specifically for sharps disposal.

h. Use of disposable thermometers in isolation rooms is preferred; however, electronic thermometers may be used depending upon the disease or illness.

i. Discard all infectious waste including dressings, tissue paper, and other disposable items soiled with secretions, using the procedures outlined in Chapter 5 of this instruction.

j. Double-bag all soiled linen, securely tying both bags. Place bags in linen cart in dirty linen room. There is no need for "two person" double-bagging, unless the outside bag is contaminated with the infectious material.

4004. Action

a. Commanding Officer is responsible for ensuring that patients are isolated appropriately.

b. Infection Control Committee Chairman, Infection Control Officer or Director, Medical Services shall authorize appropriate isolation, if the attending physician has not done so.

c. Attending Physicians shall:

(l) Be responsible for placing their patients on isolation precautions and to inform the patient of the precautions.

(2) Communicate both in writing (on the physician's orders) and verbally to the nursing staff, the diagnosis and type of isolation required.

d. Head, Inpatient Nursing Department, ICO, or Senior Nurse Officer on duty may direct a higher level of isolation, if deemed necessary, while awaiting a decision from the Infection Control Committee Chairman or the Director, Medical Services.

e. Ward nurse shall:

(l) Review the physician's orders, including the type of isolation chosen.

(a) If the type of isolation ordered is not consistent with the guidelines in this instruction, the nursing staff must bring it to the attention of the physician.

(b) If the discrepancy is not resolved, the nurse should call the Infection Control Committee Chairman or the ICO to help resolve the issue; if unavailable, the Ward Medical Officer.

(2) Be responsible for initiating isolation procedures, displaying the isolation precaution card in the appropriate location, obtaining the necessary isolation equipment, informing hospital personnel when patients have been placed in isolation, and for maintaining isolation procedures until the order is written to discontinue isolation procedures.

(3) Discontinue isolation procedures upon the written doctor's order to do so.

f. Infection Control Officer shall be responsible for coordinating the Isolation Procedure Training for the hospital staff.

g. All hands must ensure that potentially contagious individuals are properly isolated. Good communication between physicians, nurses, and corpsmen is the key to successfully implementing appropriate isolation techniques.

4005. Standard Precautions

a. Purpose. Healthcare personnel may be exposed to a broad range of bloodborne disease. Although the current concern is Acquired Immunodeficiency Syndrome (AIDS), there are several other bloodborne diseases which may be transmitted to staff personnel, including hepatitis B and "non-A non-B" hepatitis. The principle purpose of standard precautions is to protect hospital staff.

b. Policy

(l) The American Hospital Association Advisory Committee has issued a statement that encourages the universal use of "Blood and Body Fluid Precautions" for ALL patients. This Command has adopted these precautions as policy.

(2) The Center for Disease Control (CDC) has issued "Recommendations for Prevention of HIV Transmission in Healthcare Settings," which emphasizes the need for healthcare workers to consider all patients as potentially infected with HIV or other bloodborne pathogens and to follow infection control precautions to minimize the risk of exposure to blood and body fluids of all patients. Since medical history and examination does not reliably identify all patients infected with HIV or other bloodborne pathogens, Universal Blood and Body Fluid Precautions must be used with all patients, regardless of their diagnoses. The use of blood and body fluid precautions for all patients eliminates the need for the pink isolation sign "Blood and Body Fluid Precautions" previously recommended by the CDC (when using category specific isolation) for patients with known or suspected to be infected with bloodborne pathogens.

c. Procedures

1. Wash your hands immediately if they become contaminated with blood or body fluids. Wash your hands routinely before and after contact with a patient and after you take off your gloves.

2. Apply Standard (Universal/Body Substance Isolation) Precautions to all patients regardless of their diagnosis, and to all contaminated equipment and materials. Use judgement in determining when protective barriers are needed.

3. Wear gloves when your hands are likely to be in contact with blood or body fluids, mucous membranes, skin that has open cuts or sores, or contaminated items or surfaces.

4. Wear a protective gown or apron when you are likely to soil your clothes with blood or body fluids.

5. Use caution when handling contaminated sharps. Dispose of them immediately after use in a puncture-resistant container. Avoid recapping needles. Use a one-handed recapping

technique or use a mechanical device like a forceps to remove needles.

6. Wear gloves whenever you are handling laboratory specimens and tubes of blood. Check to see that the specimen is sealed.

7. While performing proceduresuse techniques that minimize the splashing or spraying of body fluids. Use protective eyewear and mask as needed.

8. Do not eat, drink, apply lip balm or handle contact lenses in an area where exposure is likely.

9. Use a pocket mask or other ventilatory device when giving CPR.

10. Clean up spills of blood or body fluids promptly using gloves, a towel and disinfectant.

11. Place soiled linen in an impermeable bag and close or tie it shut.

12. Clean, disinfect or sterilize contaminated equipment between uses and before sending equipment for repairs.

13. If you job duties pose a reasonable potential for exposure to blood or body fluids, get the Hepatitis B vaccine. Be sure to be up to date on all your vaccinations.

14. Report any blood or body fluid exposures promptly to your manager and Occupational Health Services Staff.

15. In additon to the Standard Precautions hospitals use for all patients and situations, patients with certain infections may need additional infection control measures to protect other patients and health-care workers. The appropriate isolation precautions need to be individualized for each case. Refer to your facility’s policies and procedures about isolation precautions for more information (e. g., tuberculosis, resistant organisms, etc.).

4006. Methicillin Resistant Staphylococcus Aureus (MRSA). MRSA is a strain of Staph Aureus that is resistant to multiple anti-biotics. These organisms are not, more virulent or contagious

than the nonresistant strain. Their resistance to multiple drugs necessitates special care to prevent nosocomial spread.

a. Guidelines

(l) The laboratory will notify the Infection Control Officer and the primary physician of the presence of MRSA on culture.

(2) Patients infected or colonized with MRSA will be placed in isolation as specified in this chapter.

b. Control Measures

(l) Colonization: Cultures from the anterior nares and axilla will be done. Patients will remain on precautions until cultures are negative.

(2) Infections: Cultures from site or sites must be negative before the patient can be released from precautions.

c. Preventive Measures

(l) HANDWASHING IS PARAMOUNT

(2) Compliance with procedures.

(3) Identify the infected or colonized patient by documenting MRSA on their inpatient and outpatient problem list.

(4) Place anyone identified as being colonized or infected with MRSA in precautions on subsequent admissions.

d. In the advent of multiple patients with MRSA and nosocomial spread is suspected.

(1) All personnel in contact with the colonized or infected patient will be cultured from the anterior nares and axilla.

(2) Any member found to be colonized will be treated until cultures are negative and should have NO patient contact until successful treatment is documented with negative cultures.

e. Suggested Treatment

(l) Treatment for Infection: The drug of choice is Vancomycin. If therapy with Vancomycin fails to eradicate the infection, it may be necessary to add Rifampin, Trimethoprim-Sulfamethoxazole, or an aminoglycoside. Mupirocin or Bactroban ointment tid has been used successfully on decubitus ulcers. Reculture 48 hours post therapy by obtaining one to three negative cultures taken at least 24 hours apart.

(2) Treatment for Nasal Colonization: Nasal bacitracin, Mupirocin, or Bactroban ointment tid, plus 600mg Rifampin tid for five (5) days. Reculture 48 hours post therapy by obtaining 1-3 negative cultures taken at least 14 hours apart.

(3) Treatment for Extranasal Colonization: Treat for nasal colonization plus Hexachlorophene or Chlorhexidine wash tid for all skin surfaces.

Chapter 5

MANAGEMENT OF MEDICAL WASTE

5001. Policy. This command will comply with appropriate laws and regulations to ensure safe and efficient handling and disposal of infectious waste. Reference (d) provides guidelines for the management of medical waste at Naval Medical and Dental treatment facilities. Reference (f) provides local regulations for handling, storing and disposing of infectious waste in San Bernadino County. Maximum effort will be taken to ensure the safe control and disposal of infectious waste materials.

5002. Background

a. There is some concern regarding the public's perception of potential adverse environmental and health effects resulting from the disposal of medical waste. Medical waste results from diagnostic and treatment procedures. This concern exists, even though there is no evidence to suggest that hospital waste disposal is infective, or that hospital disposal practices have caused disease in the community.

b. Medical waste is divided into the following categories:

(l) Infectious Waste (liquid or solid/biohazardous). Contains pathogens in sufficient numbers, and with sufficient virulence, to cause infectious disease in susceptible hosts exposed to the waste. Examples are:

(a) Sharps, including hypodermic needles, syringes, scalpel blades, suture needles, Pasteur pipettes, specimen slides, cover slips, glass petri plates, and broken glass contaminated with potentially infectious material.

(b) Microbiology wastes from cultures and stocks containing microbes that, due to their species, type, virulence, or concentration, are known to cause disease in humans. This includes specimens from medical and pathology laboratories, discarded live vaccines, wastes from production of biologicals, cultures and stocks of infectious agents from clinical research and industrial laboratories, and deposable culture dishes and devices used to transfer, inoculate, or mix cultures.

(c) Liquid or semi-liquid blood or other potentially infectious body fluids including semen, vaginal secretions,

cerebrospinal fluid, pleural fluid, synovial fluid, pericardial fluid, amniotic fluid, salvia in dental procedures, and any body fluid visibly contaminated with blood. Also materials that could release blood or other potentially infectious body fluids in a liquid or semi-liquid state, “dripping”, if compressed, items caked with dried blood, or other potentially infectious body fluids, capable of releasing these materials during handling, are classified as infectious waste.

(d) Pathological wastes, including human tissues and organs, amputated limbs, or other body parts, fetuses, placentas, and similar tissues from surgery, delivery, or autopsy procedures. Animal carcasses, body parts, and bedding exposed to human pathogens are also included in this category.

(e) Medical items from isolation rooms contaminated or likely to be contaminated with blood or other potentially infectious materials.

(2) Noninfectious waste (solid). Items determined to be noninfectious waste can be treated as general waste, using accepted methods of collection, storage, transport, and disposal. Examples are:

(a) Bandages, dressings with dried blood (that won't flake-off in large amounts), surgical gloves, empty specimen containers, used personal hygiene products such as diapers, facial tissues, and sanitary napkins, unless the waste is from isolation rooms or, in the case of sanitary napkins, originates from the labor deck or gynecological surgery area.

(b) Absorbent materials (i.e., alcohol wipes, gauze, cotton balls, chux, etc.,) not including waste from isolation rooms, containing very small amounts of blood or other body fluids and <u>decontaminated biohazardous waste</u>.

5003. <u>Containers and Storage Requirements for Infectious Waste</u>

a. Segregation. Infectious waste must be separated from noninfectious waste at its <u>point of origin</u>.

(l) Infectious waste must be placed in containers labeled with the universal biohazard symbol and the word "BIOHAZARD", or be red in color.

(2) Containers shall be lined with plastic bags of sufficient thickness, durability, puncture resistance and burst strength to prevent rupture or leaks.

(3) Any enclosure or designated accumulation are used for the storage of medical waste containers shall be secured so as to deny access to unauthorized persons and shall be marked with warning signs on or adjacent to the exterior of entry doors. The storage area may be secured by use of locks on the entry doors. The wording of warning signs shall be in English , "Caution-Biohazardous Waste Storage and - Unauthorized Persons Keep Out," and in Spanish, "Cuidado, Zona de Residous-Biologicas Peligrosos-Prohibida Ia Entrada A Personas No Autorizadas". This also includes Linen/Storage rooms where medical waste container are stored and/or the locking of containers.

b. Red Bags. Infectious waste (except sharps) must be <u>double-bagged</u> in red plastic bags.

(l) Several small bags can be bagged into a large bag.

(2) Each bag should be waterproof and be strong enough to prevent ripping, tearing, or bursting under normal use and handling.

(3) Bags must be securely tied to prevent leakage or spilling of solid or liquid waste during storage or handling. Bags shall be tied in a single knot in the neck of the bag and not by the corners.

(4) Bags shall be conspicuously labeled with the international biohazard symbol and the word "Biohazard" or "Infectious Waste". Outer red bags shall be labeled with the producer's name, address, and phone number easily visible.

c. Sharps Containers. Containers for sharps must be leakproof, rigid, puncture-resistant containers which, when sealed, cannot be reopened without great difficulty.

(1) Sharps are defined to be any pointed or jagged edge object that presents a potential hazard to personnel during collection and disposal of infectious waste.

(2) Never clip, cut, bend, or recap needles prior to disposal in containers.

(3) The containers for sharps must be labeled with either "Biohazard" or "Infectious Waste" on the outside of the container. These containers must also be labeled so that the producer's name, address and phone number are legible and easily visible on the outside of the container. Close and seal the containers securely when they are 3/4 full. Do not overfill!

5004. Identification and Disposal of Infectious Waste

a. Laboratory and Operating Room Waste

(l) Microbiological, and surgical specimens will be double-bagged as infectious waste at point of origin.

(2) Liquid waste as using, feces, vomitus, blood and other body fluids shall be disposed of in the sewer system.

(3) Toxicology and drug screen specimens and their containers will be disposed of as medical waste.

(4) Pathological waste will be double-bagged, segregated from other biological waste and ultimately turned in separately from other waste due to different incineration requirements.

b. Emergency Room and Clinical Areas. All types of syringes, bloody dressings, and gauze soaked with blood will be disposed of as infectious waste.

c. Waste Disposal

(l) The outer red bag shall be labeled as outlined in paragraph 5003 above. Departments are requested to separate bio-harzard waste into either pathological waste (patient produced) or biological waste (serums, vaccines, antigens, etc)prior to delivery to loading dock.

(a) Infectious waste will then be transported to the biohazard storage shed located at the loading dock area on the north side of the hospital during the assigned hours of 0800-0900, Monday through Thursday and 1400-1500, Monday through Friday.

(b) The biohazardous storage shed key and log book are maintained by the Material Management Department.

(c) Turn-in of bio-harzardous waste on weekends, holidays, and after hours will continue to be at the discretion of the OOD. The key & log book will be located at the Information desk. Medical waste must be brought to Material Management Department or the Information Desk.

(d) It is to be transported in covered or draped carts at designated times (morning or afternoon) for disposal. Infectious waste shall not be held in any area longer than one day (24-hours) prior to disposal.

(2) Staff member removing the waste will be required to log date, type of waste and amount (volume or weight) in medical waste log book provided by the Materials Management Department.

(3) After logging, the producer will accompany a Material Management staff member to the medical waste holding area, where medical waste will be placed into appropriate medical waste containers provided by the licensed biohazardous waste hauler.

5005. Security of Waste Holding Area. The infectious waste holding area shall be secured to deny access to unauthorized persons, animals, wind, rain, insects, and rodents. Warning signs must be posted and visible from at least 25 feet from enclosure area. Warning signs will be written in English and Spanish as outlined below:

a. In English:
"Caution, Biohazardous Waste
Storage Area - Unauthorized
Persons Keep Out"

b. In Spanish:
"Cuidado, Zona de Residous (Infectadas)
Prohibida Ia Entrada A Personas
No Autorizadas"

5006. Action

a. Head Material Management Department shall:

(l) Manage the daily (work day) disposal of infectious waste. Maintain and provide the key for the medical waste

storage shed and a log book required for appropriate tracking per all applicable Federal, State and local statutes.

(2) Observe weekly contractor waste pick-ups.

(3) Maintain medical waste storage areas in sanitary condition.

(4) Maintain Command Medical Waste permits.

b. Environmental Health Officer shall:

(l) Monitor all aspects of the handling and disposal of medical waste.

(2) Annually, or as requirements change, review local policies and procedures to ensure compliance with all applicable Federal, State and local statutes.

(3) Based upon the guidelines given in reference (f) and (g), develop lesson guides and conduct medical waste management training during Command Indoctrinations and/or as required to ensure all personnel are familiar with local policies and procedures.

(4) Provide Material Management Department with technical assistance as needed.

(5) Inspect contractor site quarterly to ensure compliance with all regulations.

c. All Personnel shall:

(l) Be knowledgeable of, and put into practice, medical waste management policies and procedures.

(2) Immediately report the following to their supervisor:

(a) Any confirmed or suspected violation of policy or procedure.

(b) Any confirmed or suspected occupational exposure to potentially infectious agents.

d. Cleanup of infectious waste spills:

(l) Infectious waste spills shall be cleaned up immediately.

(2) Personnel shall wear appropriate protective apparel or equipment, such as gloves, coveralls, mask, and goggles, to prevent exposure to infectious waste when cleaning up spills.

(3) Place leaking or broken containers in a new, double-lined container. The container shall be labeled or color coded as stated above. Remove blood and body fluid spills with an absorbent material and disinfect the are with LPH or a solution of household bleach diluted 1:10 with clear water.

Chapter 6

HOUSEKEEPING

6001. Purpose. To ensure that all hospital spaces are maintained to ensure maximum cleanliness and orderliness. This will result in decreased microbiological growth, prevent the potential spread of disease, and suppress major nosocomial (hospital acquired) infection outbreaks.

6002. Background. Microorganisms are normal contaminants of walls, floors, and other surfaces; however, these surfaces are rarely associated with transmission of communicable diseases to patients or staff.

a. While it is important to remove soil, debris and dust from these surfaces, unusual attempts to disinfect these surfaces is rarely appropriate.

b. Although this responsibility falls primarily within Nursing Services and the Operating Management Department, all hands must work as a team to ensure that spaces remain as free as possible of potential contaminants. Maximum effort will be used to maintain the cleanliness of all hospital spaces by all staff personnel.

6003. General Guidelines

a. Only disinfectants and disinfectant detergents approved by the Infection Control Committee may be used.

b. Cleaning schedules will vary according to the area of the hospital, types of surfaces, and amount of soil. The actual requirements are identified in the Operating Management Department's Standing Operating Procedure (SOP).

c. Housekeeping equipment shall not be allowed in the same elevator with food service carts. Food service carts have precedence over housekeeping equipment being transported.

d. Mop heads shall be replaced when they begin to unravel or wear out, but at least monthly.

e. Only one elevator car is to be out of service for cleaning at any time.

f. The following equipment shall not be cleaned, moved, or otherwise handled by housekeeping personnel.

(l) Surgical Instruments

(2) Anesthesia Machines

(3) Inhalation Therapy Equipment

(4) Respirators

(5) Cardiac Monitoring Equipment

(6) Laboratory Equipment

(7) Pharmacy Equipment

(8) Intravenous Therapy Equipment

(9) Library Books

(10) Instrument Stands in Examining Rooms

6004. Patient Rooms

a. Daily. To maintain cleanliness in the patient area, daily cleaning will be done by Operating Management Department personnel. Rooms will be cleaned as described below:

(l) Empty wastebaskets by the patient's bed and bathroom.

(a) Close, twist, and tie plastic bag while still in the wastebasket.

(b) Remove plastic bag from wastebasket and deposit in large bag on housekeeper's cart or in dirty utility room.

(c) Check wastebasket for soil and clean with cloth dipped in germicidal detergent.

(d) Reline wastebasket with single plastic liner. Extra liners will not be stored in the bottom of the wastebasket.

(2) Damp wipe all over-bed lights, chairs, window sills and venetian blinds with germicidal detergent.

(a) Television sets will be cleaned with a dry cloth, the screen will be cleaned with window cleaner. NOTE: Televisions shall be unplugged before cleaning.

(b) Do not use the same cloth for more than one (1) room.

(3) Use cleaning solution to remove fingerprints and smudges from light switches, door frames, and walls. Spray on cloth or carefully on the surface to prevent streaking.

(4) Clean bathroom and shower. Refill paper products and soap dispensers.

(5) Mop floor with germicidal solution, using the single bucket method.

(a) Occupied patient beds may only be moved to do required cleaning and only with the assistance of medical personnel.

(b) Start at the corner farthest from the door. Use the "figure 8" stroke.

(c) Do not slap the baseboards while moping.

(d) Flop the mop over only once.

(e) Clean the baseboards with the heel of the mop and wipe out each corner of the room.

(f) Move furniture, telephone wires and, electrical cords and mop under them.

(6) Change mops when they are soiled, but at least every five (5) patient occupied rooms.

(7) Wash hands and arms thoroughly after each room.

b. Rooms vacated by patient. Patient rooms will be cleaned by Nursing Service personnel within three (3) hours of patient checkout. The following process shall be followed:

(l) Remove soiled bed linen. Place contaminated linen in plastic bags and deliver to the dirty laundry storage area.

(2) Damp wipe the entire bed, including the bed frame, mattress cover and pillows, using an approved germicidal agent.

(3) Damp wipe all patient furniture, including the inside of patient bedside tables, using an approved germicidal agent.

(4) Follow daily room cleaning procedures as outlined below.

(5) Remake bed according to hospital procedures.

c. Daily Cleaning and Terminal Cleaning of Isolation Rooms. Isolation rooms are rooms specifically assigned to patients who are hospitalized with infectious diseases. Housekeeping staff must take precautions to insure that they do not contaminate their self, the isolated patient, or others.

(l) Isolation signs. Preprinted isolation signs are to be posted on doors of isolation rooms by the nursing staff. If it is apparent there is no sign on the door, the Housekeeper will request the Nursing Service staff to post one before entering the room. All written directions on the signs are to be followed.

(2) Isolation Carts. If applicable, an isolation cart (yellow) will be placed outside the Isolation Room. At times the same cart will be used for several rooms. Each cart contains disposable gowns, gloves, masks, clear water soluble bags, yellow and red bags marked for contaminated infectious waste.

(3) Plastic Bags for Isolation.

(a) All contaminated linen is to be double-bagged.

(b) Contaminated trash is to be double-bagged using two red (infectious waste) bags. DO NOT PLACE BOTTLES OR GLASS ITEMS IN THIS BAG. PLACE GLASS MATERIAL IN SHARPS CONTAINERS FOR PROPER DISPOSAL. Red bags are to be delivered to the hazardous waste shed.

(4) Daily Cleaning. Nursing Service staff shall be responsible for the daily cleaning of all medical equipment,

beds, overbed tables, nightstands, cleaning of waste and linen hampers. This includes proper bagging, removal of contaminated waste and linen and delivering bags to designated areas. Housekeeping staff shall:

(a) Use appropriate gowns, gloves, mask, etc., as indicated by the notice posted. When finished cleaning room, dispose of gown, etc., in contaminated trash container.

(b) Not take the cleaning supply cart into the room. Supplies taken into the room should be in small quantities and will remain in the room during the patient's stay. Toilet brushes used in the isolation room will not be removed from the room or used elsewhere.

(c) Clean the bathroom, shower, and mop floor as usual. Replenish paper products and soap dispensers.

(d) Ensure all rags and mop heads used in cleaning isolation rooms are double-bagged when cleaning is completed. Mop water and mop heads are to be changed after mopping each isolation room.

(e) Wash window sills and change cubicle curtains; if obviously soiled.

(f) Clean all housekeeping equipment used in the room with germicidal solution before moving to another room.

(5) Terminal Cleaning. The term "terminal cleaning" is used when cleaning a room after a patient has been discharged. In addition to the daily cleaning procedures described above, Housekeeping staff shall:

(a) Clean walls. Cubicle curtains will be treated as contaminated and double-bagged.

(b) Dispose of the toilet brush and all supplies left in the room in the contaminated trash.

(6) Weekend Isolation Cleaning. Routine isolation cleaning will not be accomplished on weekends or holidays by Housekeeping personnel. Terminal isolation cleaning on weekends and holidays will be performed by Nursing Service personnel,

using the guidelines described above. Housekeeping weekend and Holiday duties limited to emergency calls only.

d. Rooms and Areas With Ectoparasite (Lice) Infestations. Lice that infest man include body, head, and crab louse. Lice enter hospitals on the bodies and clothing of persons. If not discovered, head and body lice can move from patient to patient, staff, and to bedding.

(l) Lice infestation.

(a) The egg which is called a "nit" of the head and crab louse is attached to human hairs with cement. The egg of the body louse is attached to fibers of underclothing.

(b) The adults of the head lice are usually found in scalp hair, on the back of the neck, and behind the ears.

(c) Crab lice are commonly found on the hairs in the pubic region and may be found on the hairy portions of chest and armpits or occasionally in the eyebrows or eyelashes. The crab louse can infest toilet seats and beds, but is usually acquired by close personal contact.

(d) The adults of the body louse rest in clothing, except while feeding.

(e) All three human lice cause dermatitis. The body louse is the vector of epidemic typhus and other diseases.

(f) Lice can also be found in showers, examining rooms, waiting rooms, furniture, etc.

(2) Nursing Service Responsibilities

(a) After a case of louse infestation has been diagnosed, nursing will notify the ICO.

(b) After the patient has had the appropriate treatment, they will be given clean pajamas and moved to a new room.

(c) Personal clothing will be sealed in a plastic bag and sent to the patient's home for laundering.

(d) Patient linen will be treated as contaminated linen.

(e) Nursing staff will clean, using a disinfectant, the bed, mattress, nightstand, overbed table, and all medical equipment within the room, paying particular attention to seams and cracks, to ensure all lice and nits are removed.

(f) Nursing Service personnel will notify the Head, Operating Management Department to proceed with terminal cleaning of the room and bathrooms or area concerned. If housekeeping personnel are not available, nursing staff will proceed with terminal cleaning of the room or area.

(3) Housekeeping Responsibilities. Terminal cleaning of the room will be accomplished with particular emphasis on vacuuming of floor border and corners before wet mopping. Mops and cleaning cloths will be treated as contaminated linen.

6005. Single-Bucket System

a. Purpose. To provide germ-free and clean floors. All patient care areas will be mopped using the single-bucket system.

b. Procedure

(l) Mix warm water and disinfectant solution in the bucket according to the manufacturer's directions. If necessary, stir contents to ensure proper mixture. Place mop head in bucket containing disinfectant solution. Wring the mop fairly dry prior to mopping. This will decrease drying time and reduce the slip hazard. Mop so that a walking area is kept dry for personnel to safely walk. This is done by mopping one-half or one-quarter of the length of the hallway at a time.

(2) Place "Wet Floor" signs at both ends of area to be cleaned. These signs should be placed in the corridor to direct traffic with floor scraper.

(3) Remove any gum or other foreign matter adhering to floor with the floor scraper.

(4) Immerse mop a second time in bucket containing disinfectant solution, wring excess solution from the mop in gear

mop press and run the mop along the baseboard for approximately 20 feet.

(5) Rinse mop out thoroughly in the bucket then wring dry and continue mopping with this procedure.

(6) Mop from one side of the mopping area to the other in a figure eight motion. In open areas, mop a strip about 8 fee wide.

(7) In the case of a large floor area, move "Wet Floor" signs to block off the next area to be mopped and begin mopping the next section. Mop strokes should overlap into the section just completed.

(8) In rooms containing floor drains, pour disinfectant solution remaining in the bucket into the floor drain when mopping has been completed. This fills the traps, kills bacteria growth and destroys odor.

(9) Change disinfectant solution as often as is neces-sary. This will prevent the floor from streaking. Change mop heads as they become soiled, but at least every five (5) rooms.

6006. Cleaning Floors With Dust Mops. Floors will not be "dry" dusted. A dust treatment product is to be used on the dust mop head.

a. Use the floor scraper to remove any gum, tar, food, etc., prior to using the dust mop.

b. Start at the corner furthest from the door and move towards the door.

c. Move bed stands, over bed tables, and chairs as necessary. Lift telephone wires and electrical cords to clean under them. Use particular caution around computer terminals and patient equipment.

d. Change the mop head on a daily basis or more frequently as necessary.

6007. Bathroom Cleaning

a. Purpose. To maintain clean, hygienic bathrooms.

b. Procedure

(l) Put on rubber gloves prior to beginning cleaning. Start cleaning with the least soiled area and finish with the most soiled. Start at the top and finish at the bottom.

(2) Clean the mirror: Use glass cleaner and a paper towel or cloth to clean the mirror.

(3) Clean sink. Using the germicidal solution in the spray bottle, spray cloth and wipe all ledges and faucets. Give special attention to soap collecting spots and drain holes. Wipe and clean the underside of the sink for soap drippings and the pipes for dust. Use an approved cleaner for any stains. Rinse the sink and wipe dry with a clean cloth.

(4) Ledges. Disinfect all ledges using the disinfectant spray and a clean cloth. Disinfect the paper towel dispenser.

(5) Tub and Shower. Wipe down the tub/shower with disinfectant and a clean cloth. Wipe the ceramic tile each day to prevent soap build-up. Use a dry cloth if necessary to wipe chrome. Check shower curtain for replacement.

(6) Disinfect toilet (interior). Put on gloves and goggles. Using the toilet bowl brush/swab and cleaner, clean the interior of the toilet bowl. Always wipe across the water inlets near the toilet seat to prevent buildup. As necessary and with special caution, use scouring for stains and build-up.

(7) Disinfect toilet (exterior). Using the disinfectant and a clean cloth (used only for wiping a single toilet), spray and wipe the exposed plumbing, handle, toilet seat, and brackets, then the base of the toilet. Dry the chrome and toilet seat with a dry cloth if necessary. Do not forget the underside of the toilet seat.

(8) Spot clean walls. Damp wipe wall area around the toilet using the disinfectant spray and a cloth.

(9) Refill dispensers. Refill soap, tissue, and paper towel dispensers.

(10) The final step is to use the floor mop and disinfectant to clean the bathroom floor.

6008. Bathtubs and Showers in Patient Areas

a. Bathtubs are cleaned by ward personnel, using an approved germicidal detergent. Cleaning between patients will also be accomplished by ward personnel.

b. Showers will be cleaned daily by housekeeping personnel. Tiles will be scrubbed with cleaner at least once a week.

c. Ward staff will replace shower curtains when they are soiled or per unit policy.

(l) Shower curtains are sent to the laundry for washing unless curtain is unserviceable.

(2) Replacement curtains may be obtained from the Material Management Department.

d. Rubber gloves will be used when cleaning bathtubs or showers.

6009. Linen

a. Purpose. To prevent the spread of infections, emphasizing precautions to be taken in the handling of soiled and clean linen in the hospital.

b. Collecting infectious linen

(l) All soiled linen will be considered INFECTIOUS and double-bagged prior to delivery to the soiled linen room. Laundry bags are available from the Linen Clerk.

(2) Each are producing contaminated linen will have a designated space that is separate and can be closed off from patient care and clean areas for the containment of infectious linen.

(3) The soiled linen room key must be obtained from the OOD.

c. Supervisors are responsible for insuring the linen hampers are cleaned on a weekly basis and as needed. All surfaces of the hamper shall be wiped inside and out, including

the lid, with a cloth and Activated Dialdehyde Solution (LPH) or an approved disinfectant. d. At no time will infectious linen be counted or sorted.

e. Personnel conducting the linen change or conducting the terminal cleaning of a patient room shall be properly gowned, gloved, and masked prior to entering the patient's room.

f. Wash your hands after touching contaminated linen or linen hampers.

g. Linen carts shall be cleaned twice weekly, or as needed by wiping all surfaces of the cart with a cloth and LPH or an approved disinfectant.

Chapter 7

CONTROL OF EXPOSURE TO BLOOD-BORNE PATHOGENS (BBP'S)

7001. Purpose. To establish guidelines and assign responsibilities for implemention of the Exposure Control Plan for Blood-Borne Pathogens (BBP's) in compliance with references (e), (g) and (h).

7002. Background

a. On 6 December 1991, the Occupational Safety and Health Administration (OSHA) issued the final standard on Occupational Exposure to Bloodborne Pathogens. In issuing this standard, OSHA has determined that health care workers face a significant health risk as a result of occupational exposure to bloodborne pathogens including Hepatitis B virus (HBV) and Human Immunodeficiency Virus (HIV).

b. As defined in reference (e), BBP's refer not only to Hepatitis B virus (HBV) and Human Immunodeficiency Virus (HIV) but also to other organisms that cause diseases such as Malaria and Syphilis if present in human blood. Further regulations deal with other potentially infectious materials besides blood and blood products, such as tissue cultures, organs and other body fluids.

c. Until now, only health care workers were considered occupationally exposed to BBP's. However, reference (e) expands the definition of occupationally exposed populations to include: dentists and dental technicians, fire fighters and fire officers, medical facility housekeeping personnel and medical repair technicians. Occupational exposure means reasonably anticipated skin, eye, nasal and lung, mouth, or blood contact with blood or other potentially infectious materials that may occur while personnel are carrying out their duties.

7003. Policy

a. All patients are potentially infected with HIV, HBV, or other blood-borne pathogens. Therefore, whenever possible, rapid establishment of an infective status in a source patient is the first priority.

b. Standard precautions must be used by all health care workers to reduce risk.

c. When precautions are violated or an accident occurs, and a health care worker has a parenteral (e.g., needle stick or cut) or mucous membrane (e.g., splash to the eye or mouth) exposure to blood or other body fluids, there is a possibility of contracting HBV or HIV.

d. The decision to test civilian employees for viral hepatitis shall rest solely with the health care worker and the Commanding Officer.

e. Appendix C (Post Exposure Prophylaxis Provider Encounter Form) and section 7012 provide assistance to health care providers in determining if administration of HIV and viral Hepatitis prophylaxis is/are required. However, before beginning prophylaxis, consultation with the Occupational Health and Preventive Medicine Department is most strongly recommended.

f. The recommendation described in reference (e) will be followed with respect to the management of subject exposure to HBV or HIV.

g. When case management significantly deviates from recommended guidelines, an appropriate health record entry to a Chronological Record of Medical Care (SF-600) must be prepared by the health care provider.

7004. Definitions

a. Bloodborne Pathogens. Pathogenic microorganisms that are present in human blood. These pathogens can cause disease in humans and includes, but is not limited to, HBV and HIV.

b. Occupational Exposure. Reasonably anticipated skin, eye, mucuous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

c. Regulated Waste. Liquid, semi-liquid or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and

are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

7005. Potential Exposure Determination. In determining the occupational risk to employees, all hospital working conditions and environment have been evaluated. Duties, tasks, procedures and job classifications that place an employee at risk of occupational exposure were taken into consideration. The following guidelines for potential exposure are provided:

a. Exposure Determination by Job Classification

(1) Category I (Probable Routine Exposure)

(a) Physicians, nurse practitoners, nurse midwives, nurse anesthetists

(b) Physicians Assistants

(c) Nurses

(d) Hospital Corpsmen

(e) Laboratory Technicians

(2) Category II (Non-routine/Possible Exposure)

(a) Ambulance Drivers

(b) RADCON and DECON Personnel

(c) Biomedical Equipment Repair Technicians

(d) Medical Treatment Housekeeping Personnel

(3) Category III (Unlikely Exposure)

(a) Administrative Personnel

(b) Audiology Personnel

(c) Industrial Hygiene Personnel

(d) Optometry and Pharmacy Officers

(e) Operating Management Personnel (other than Housekeeping personnel)

(f) Clerks and Receptionists

(g) Social Workers

b. Exposure Determination by Task Procedure

(l) Category I

(a) Suturing

(b) Injections

(c) Incision and Drainages (I & Ds)

(d) Intravenous (IV) Catheter Placement

(e) Blood Drawing

(f) Wound Irrigation

(g) Hemorrhage Control

(h) Infectious Waste Disposal

(2) Category II

(a) Any task when providing assistance to Category I personnel where possible exposure to blood or other bodily fluid exists.

(b) Repair of contaminated equipment.

(c) Collection and disposal of waste and trash from areas where potentially contaminated items are discarded.

(3) Category III. Personnel in this category may encounter situations where exposure to possibly contaminated specimens or items exists and should avoid all contact with suspect specimen and contact a corpsman, nurse or other provider for disposition and removal of specimen from area as appropriate.

7006. Methods of Compliance

a. Standard precautions, as outlined in Chapter 4 of this manual. Reference (h) shall be observed by all personnel.

b. Work practice controls

(l) All personnel shall wash their hands in accordance with this manual Chapter 2 immediately or as soon as feasible after removal of gloves or other personal protective equipment.

(2) All biomedical waste, including sharps, shall be managed in accordance with Chapter 5 and contaminated sharps, including needles, shall not be bent or recapped. Shearing or breaking of contaminated needles is prohibited.

(3) Eating, drinking, handling contact lenses, applying cosmetics, or lip balm is prohibited in areas where a reasonable occupational exposure to blood or other potentially infectious materials exists.

(4) Food or drink shall not be kept in refrigerators or freezers, shelves, cabinets, or on countertops or benchtops where blood or other potentially infectious materials are present.

(5) All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

(6) Mouth pipetting or suctioning of blood, or other potentially infectious material, is prohibited.

(7) Containers for transport or shipping shall be labeled with a Biological Hazard Label and shall be taped securely prior to being transported or shipped.

(8) Equipment which may become contaminated with blood or other potentially infectious materials shall be inspected prior to servicing or shipping, and shall be decontaminated as necessary.

c. Personal Protective Equipment. Personal protective equipment shall be worn by all personnel in accordance with

Chapter 4 when there is occupational exposure to blood or other potentially infectious materials.

(l) Gloves

(a) Protective gloves shall be worn when it can be reasonably anticipated that there will be hand contact with blood, other potentially infectious materials, mucous membranes, or non-intact skin. Gloves will also be worn when performing vascular access procedures, such as venipunctures.

(b) Protective gloves shall be provided to and routinely used by phlebotomists.

(c) Disposable (single use) gloves shall not be washed or decontaminated for re-use.

(d) Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised.

(2) Masks. Masks and eye protection such as goggles or face shields shall be worn whenever sprays, splashes, spatters or droplets of blood or other potentially infectious materials may be generated. This includes situations when eye, nose or mouth contamination can be reasonably anticipated, such as when cleaning surgical instruments and during surgical procedures.

(3) Protective Body Clothing

(a) Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar garments shall be worn in occupational exposure areas.

(b) If a garment is penetrated by blood or other potentially infectious material it shall be removed as soon as possible.

(4) Face shields or goggles must be worn by the surgical team during procedures.

(5) All personal protective equipment shall be removed prior to leaving the work area.

(6) When personal protective equipment is removed, it shall be placed in the appropriate area or container for storage, washing, decontamination or disposal.

d. Housekeeping

(l) All areas of the hospital shall be cleaned in accordance with Chapter 6.

(2) Surfaces shall be decontaminated with an appropriate disinfectant after completion of procedures; after any spill of blood or other potentially infectious material; and at the end of the work shift if the surfaces have become contaminated since the last cleaning.

(a) Protective coverings, such as plastic wrap, aluminum foil, or imperviously backed absorbent paper (chucks) used to cover equipment or environment surfaces, shall be removed and replaced as soon as feasible after overt contamination or at the end of the work shift if contamination may have occurred during the shift.

(b) Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned using mechanical means, such as dust pan and brush, tongs, or forceps. Broken glassware shall be disposed of into a sharps container and the area of breakage and clean up equipment sanitized with an appropriate disinfectant. Protective gloves should be worn during this procedure. This cleaning method shall also be used for a sharps container spill. Using a mechanical means as referenced above, place the needles into a large six gallon sharps container. DO NOT FORCE NEEDLES BACK INTO THE SAME SMALL SHARPS CONTAINER!

c. Contaminated sharps shall be discarded as soon as possible into containers constructed and labeled in accordance with reference (d). During use, containers for contaminated sharps shall be:

(l) Easily accessible to personnel and located as close as possible to the area where used.

(2) Maintained upright during use and replaced when approximately three-quarters full.

(3) When moving containers of contaminated sharps from the area of use, they shall be:

(a) Closed prior to removal or replacement to avoid

spillage or protrusion of contents during handling, storage, transport, or shipping.

(b) Placed in a secondary container if leakage is possible. The secondary container shall be labeled in accordance with reference (d).

d. Laundry. Contaminated laundry shall be double-bagged and labeled in accordance with Chapter 6 of this manual.

(l) Laundry contaminated with blood or other potentially infectious material shall be handled as little as possible with a minimum of agitation.

(2) These sealed bags shall then be placed with other dirty laundry for the contract linen service to pick up. Dirty linen shall not be counted and bags shall remain sealed.

(3) Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of or leakage from the bag or container, it shall be placed and transported in bags or containers which prevent soak-through or leakage of fluids to the exterior.

7007. Hepatitis B Vaccination

a. Hepatitis B Vaccination

(l) All staff personnel shall be immunized against HBV in accordance with references (b).

(2) If a civilian employee declines HBV vaccination, a signed and dated statement shall be filed in the employee health record maintained by the Occupational Health Clinic. The employee may continue to work in patient care areas, after they have received counselling concerning the risks resulting from their decision. Military members who are defined as category III, Job Classification will be offered HBV vaccination. If the member declines the vaccine a special SF 600 will be assigned and maintained within that members medical record.

(3) If a Military member/Civilian employee initially declines HBV vaccination but at a later date, while still employed at this facility, desires to accept the vaccination, it will be made available then.

(4) If a routine booster dose(s) of HBV is recommended by the U. S. Public Health Service or Preventive Medicine Division at a future date, such booster shall be made available in accordance with current Naval regulations.

7008. Communicating Hazards to Employees

a. Labels and signs

(l) Warning labels shall be posted on refrigerators and freezers containing blood and other potentially infectious material, containers of biomedical waste, and containers used to store, transport or ship blood or potentially infectious material, except as outlined in this instruction.

(2) Labels required by this section shall be in accordance with reference (e).

(3) Red bags or red containers per reference (e) may be substituted for labels.

(4) Containers of blood, blood components or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempt from the labeling requirements.

(5) Individual containers of blood or other potentially infectious material that are placed in a labeled container during storage, transport, shipment or disposal are exempt from the labeling requirement.

(6) Labels required for contaminated equipment shall be in accordance with reference (e) and shall also state which portions of the equipment remain contaminated.

b. Information and Training

(l) All personnel with occupational exposure shall participate in a training program about Standard precautions, Infection Control and Exposure Control at the time of initial assignment and annually thereafter.

(2) The training program shall contain as a minimum the following elements:

(a) An accessible copy of reference (e) and an explanation of its contents.

(b) General epidemiology and symptoms of blood-borne diseases.

(c) Modes of transmission of blood-borne pathogens.

(d) Contents of this instruction.

(e) Appropriate methods for recognizing tasks and other activities that may involve exposure to blood or other potentially infectious materials.

(f) Use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment.

(g) Types, use, location, removal, handling, decontamination and disposal of personal protective equipment.

(h) Selecting personal protective equipment.

(i) Actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.

(j) Information concerning Hepatitis B Vaccines, including information on its efficacy, safety, method of administration, and the benefits of being vaccinated.

(k) Procedures to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be provided.

(l) Post-exposure evaluation and follow-up procedures.

(m) Post-exposure prophylaxis

(n) Signs and labels and color coding.

(o) An opportunity for interactive discussion with the person conducting the training session.

(4) The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program.

7009. Documentation

a. Medical Records

(l) All employees with occupational exposure shall have a medical record established and maintained in accordance with reference (e).

(2) This record shall include:

(a) The name and social security number of the individual.

(b) A copy of the employee's Hepatitis B vaccination status, including the dates of all HBV and any medical records relative to the individual's ability to receive vaccinations.

(c) A copy of all results of examinations, medical testing, and follow-up procedures as required following an exposure incident.

(d) A copy of the healthcare professional's written opinion following an exposure incident.

(e) A copy of individual's Statement of Declination, if applicable.

(3) Confidentiality. Medical records shall remain confidential and disclosure will not be made without the individual's expressed written consent to any person except as allowed or required by Naval regulations.

(4) Per reference (e), medical records shall be maintained by the Department of Defense agency employing the individual for at least the duration of employment plus 30 years.

b. Training Documentation

(l) Training documentation shall include the following:

(a) Dates of training sessions in individual training record, maintained by Education and Training.

(b) Contents or summary of training sessions, maintained on file in departments and Infection Control Office.

(c) Names and job titles of all persons attending the training sessions.

(d) Names and qualifications of person conducting training sessions.

(2) Training documentation shall be maintained for three years from the date on which the training occurred.

c. Individual medical and training documentation shall be provided upon request for examination and copying to the individual, to anyone having expressed written consent of the individual.

7010. Action

a. Occupational Health shall:

(l) Be responsible for managing all phases of potential exposures to HBV or HIV, subsequent to parenteral or mucous membrane exposure to blood or other body fluids.

(2) Interview all referred health care workers and document the interview and results of any required blood tests in the member's health record. This interview is routinely conducted by the Occupational Health Nurse.

(3) Provide copies of all cases, or suspected cases, of healthcare worker exposure to Blood-Borne Pathogens (BBP's) to the Infection Control Officer.

(4) When required:

(a) Ensure initial and follow-up blood test are performed and results recorded.

(b) Initiate Disease Alert Reports.

(c) Notify the local health authorities.

(5) Conduct annual control plan reviews and revisions as appropriate.

b. Command Safety Manager is responsible for the mishap investigation of all sharps injuries and mucosal exposure to blood or body fluids cases.

c. Director, Medical Services is responsible for all medical aspects of this chapter.

d. The Head, Education and Training Department shall:

(l) Coordinate training for all staff personnel in accordance with reference (e).

(2) Maintain staff training records in accordance with reference (e).

e. The Infection Control Officer and Infection Control Committee shall:

(l) Ensure that this chapter is reviewed and updated annually.

(2) Monitor compliance with this directive and immediately report any discrepancies to the Executive Officer.

(3) Conduct trend analysis of exposures to BBPs and maintain documentation of corrective action taken, when problem areas are noted.

f. Department Heads/Supervisors shall:

(l) Ensure all occupationally exposed health care workers under their cognizance report within one hour of exposure to blood borne pathogens to OH/PM with health record during normal working hours (0730-1600, Monday through Friday).

(2) If the employee is exposed after normal working hours, he/she must report to the Emergency Medicine Department.

(3) When possible, the name, social security number, duty station, address and telephone number of the source patient will be provided to Occupational Health/Preventive Medicine. Use Appendix C for this purpose.

(4) Complete Mishap Report and forward to Safety.

(5) Complete QCR and forward to Risk Manager.

(6) Ensure personnel attend initial and annual training.

g. Hospital Staff shall:

(1) Thoroughly wash exposed area, immediately after exposure.

(2) Notify supervisor of exposure.

(3) Report to OH/PM with source (if possible) within one hour of exposure during normal working hours. After normal working hours, report to Emergency Medicine Department for evaluation and treatment.

h. Emergency Room Provider shall:

(1) Complete HIV Post Exposure Prophylaxis (PEP) Provider Encounter Form (Appendix C) to determine if HIV PEP is required.

(2) Follow guidelines in Section 7012 to determine if Viral Hepatitis Prophylaxis is required.

(3) Refer the patient to Occupational Health/Preventive Medicine for follow-up.

7011. Post-exposure Evaluation and Follow-up. Following an exposure incident, a Quality of Care Review (QCR) will be initiated. The QCR shall include at least the following:

(1) Documentation of the route(s) of exposure and the circumstances under which exposure occurred.

(2) Identification and documentation of the source individual, unless identification is not possible.

(a) The source individual’s blood shall be tested, if indicated, as soon as feasible and after required consent is obtained, in order to determine HBV and HIV status. If consent is not obtained, it shall be established in writing that legally required consent could not be obtained.

(b) When the source individual is already known to be infected with HBV or HIV, testing for the source individual's status need not be repeated.

(c) Results of the source individual's testing shall be made available to the exposed employee, and regulations concerning disclosure of the identity and infectious status of the source individual.

(3) A healthcare professional's opinion:

(a) Shall be obtained, in writing, and a copy provided to the exposed individual within 15 days of the completion of the evaluation.

(b) HBV vaccination shall be limited to whether HBV vaccination was indicated for an individual, and if such vaccination has been received.

(c) Post exposure evaluation and follow up shall be limited to the following information:

1 That the employee has been informed of the results of the evaluation.

2 That the employee has been told about any possible medical conditions, resulting from exposure to blood or other potentially infectious material, which require further evaluation or treatment.

(d) All other findings or diagnoses shall remain confidential and shall not be included in the written report.

7012. Recommendations for Viral Hepatitis Prophylaxis

a. Hepatitis A

(1) When administered appropriately, pooled human immunoglobulin (IG) can reduce the attack rate of Hepatitis A by 80-90%. (See Note 1)Hepatitis A vaccine is available for exposed individuals if it should be needed and is administered to all military personnel.

(2) Little or no protection is obtained when IG is delayed by two weeks or more post-exposure; the best level of

protection is obtained when IG is administered within seven days after exposure.

(3) After parenteral or mucous membrane exposure to blood, feces, or other fluids of known Hepatitis A cases, personnel exposed should receive post-exposure prophylaxis.

b. Hepatitis B

(l) Hepatitis B immune globulin (HBIG) can reduce the attack rate of Hepatitis B after exposure by 75%. Hepatitis B vaccine can reduce the attack rate of Hepatitis B by 80-95%. The combination of an approved Hepatitis B vaccine and pooled human immunoglobulin (IG) can also be very effective. (See Notes 1&2).

(2) The current recommendation from the Center for Disease Control is that HBIG be given within seven days of "needle-stick" exposure to Hepatitis B. Although some studies indicate that protection may be greater if HBIG is given within three days post-exposure, others suggest that some level of protection may be obtained when HBIG is delayed for several weeks.

(3) Recommendations for Hepatitis B prophylaxis following parenteral exposure are as follows for a known HbsAg (Hepatitis B surface antigen) positive source:

(a) Unvaccinated exposed person

1 Administer HBIG (0.06ml/kg IM) immediately.

2 Initiate HB vaccine series.

(b) Vaccinated exposed person.

1 IG (0.06 ml/kg IM) immediately. (See Note 3)

2 Test exposed person for anti-HBsAg. If anti-HBsAg titer inadequate (less than 10 SRU (Sample ratio units) by RIA (Radioimmunoassay), or negative by EIA (Enzyme immunoassay), then administer HBIG and HB vaccine booster dose immediately.

(4) Recommendations for Hepatitis B prophylaxis following parenteral exposure are as follows for an unknown HbsAg (Hepatitis B surface antigen) positive source:

(a) High-risk to HbsAg positive (e.g., homosexual, IV drug user, recipient of multiple blood transfusions, history of hepatitis or elevated liver function tests (LFTs), etc.,).

1 Unvaccinated.

a Administer HBIG immediately. (See Note 3)

b Initiate HB vaccine.

c Test source for HbsAg, if positive, administer HBIG within seven days. Requests for source HbsAg testing should be coordinated with the laboratory to ensure that the test is processed through the most expedient laboratory available. The key is rapid turnaround on source testing.

2 Vaccinated.

a Administer HBIG immediately. (See Note 3)

b Test exposed person for anti-HBsAg, if negative, administer HBIG and, if source is HbsAg positive, also administer HB vaccine booster dose.

(b) Low-risk to be HbsAg positive.

1 Unvaccinated. Initiate HB vaccine.

2 Vaccinated. Nothing required. (See Note 4)

(5) Source known to have chronic liver disease or documented abnormal LFTs and HbsAg negative.

(a) Administer HBIG immediately.

(b) If unvaccinated, initiate HB vaccine series.

Notes:

1. Immune globulins and HB vaccine are not contraindicated in pregnancy.

2. Hepatitis B vaccine may be given at the same time as HBIG. However, they should be given at different sites.

3. Pooled serum immunoglobulin (IG or "gamma globulin") contains variable amounts of anti-HB (titers ranging between 1:16 to 1: 1000 compared with HBIG titers of 1:1000,000) and offer varying degrees of protection against HB. However, IG is both safe and inexpensive, and does not interfere with HBIG or HB vaccine.

4. Following exposures to low-risk or unknown sources, the risk of contracting hepatitis is considered low. Prophylaxis is not generally recommended. However, health care providers must make the final decision. If a patient is "worried", IG may be a reasonable treatment.

7013. Recommendations for HIV Post Exposure Prophylaxis (PEP)

a. The current recommendation from the Center for Disease Control is that the PEP is administereed within two hours of occupational exposure with highest risk for HIV transmission.

b. PEP Provider Encounter Form (Appendix C) is used to determine risk level.

c. Recommendations for HIV PEP are as follows for an occupational exposure with highest risk for HIV:

(1) Drug - Zidovudine (AZT, Retrovir)
Adult Dose 200 mg PO tid; capsules 100 mg

Side Effects Nausea, headache, anemia, malaise, insomnia, granuloctopenia, thrombocytopenia, reversible myopathy with increased CPK, bluish pigmentation of mucosa and nails, lactic acidosis, increased LFTs.

Drug interaction include increased AZT levels with probenecid. Increased toxicity with other bone marrow suppressing agents (trimethoprim/sulfamethoxazole, ganciclovir, antineoplastic agents, flucytosine, amphotericin b).

(2) Drug - Lamivudine (3TC, Epivir)
Adult Dose >50 kg: 150 mg PO bid;
<50 kg: 2 mg/kg PO bid; tablets 150 mg

Side Effects Headache, fatigue, muscle ache, insomnia, abdominal pain, rash, nausea, vomiting.

Little information on interactions.
Trimethoprim/sulfamethoxazole increase lamivudine levels.

(3) Drug - Indinavir (Crixivan)
Adult Dose 800 mg PO q 8 hrs. Take on empty stomach or with a light snack; capsules 200 mg, 400 mg.

Side Effects Nausea, vomiting, diarrhea, nephrolithiasis, insomnia, hyperbilirubinemia, rash, increased aminotransferase, dry skin, dizziness.

Drug interactions include increased levels of rifabutin. Decreased Indinavir levels with rifampin-avoid use. Increased Indinavir levels with ketoconazole. No information on terfenadine, aztemizole, cisapride, triazolam, midazolam-avoid use.

Chapter 8

EXPOSURE CONTROL PLAN FOR OCCUPATIONAL HEALTH EXPOSURE TO TUBERCULOSIS (TB)

8001. Purpose. To establish guidelines and assign responsibilities for implementation of the Exposure Control Plan for Occupational Exposure to Tuberculosis in compliance with references (i) and (j).

8002. Background

a. Tuberculosis (TB) is an infectious disease which is found worldwide. In the United States, TB is more likely to occur in certain subpopulations. Groups with a higher prevalence of TB include medically undeserved populations, homeless persons, alcoholics, drug users, prison inmates, and foreign borne persons from TB endemic areas. certain medical conditions including HIV infection silicosis chronic renal failure, diabetes, and immunosuppressive medications, increase the risk of TB infection progressing to TB disease.

b. Mycabacterium tuberculosis, the bacterium that causes tuberculosis is most likely transmitted in healthcare facilities from patients with unrecognized pulmonary or laryngeal tuberculosis who are not on effective antituberculosis chemotherapy and who have not been placed in proper TB isolation.

c. Droplet nuclei generated when persons with pulmonary or laryngeal TB sneeze, cough, speak, or sing, carry M. tuberculosis in airborne particles. These particles are approximately 1-5 microns in size and can spread throughout a room of a building on normal air currents. Infection occurs when a susceptible person inhales these droplets nuclei and the bacilli reach the alveoli of the lungs. Initial infection with M. tuberculosis is both asymtomatic and not infectious but can be demonstrated by a positive tuberculin skin test. About a 10% lifetime risk exists for developing tuberculosis disease, but the risk is greatest during the first two years following infection.

d. Nosocomial TB transmission has been associated with close contact with active TB in both patients or healthcare workers, and during the procedures such as bronchoscopy, endotracheal intubation and suctioning, open abscess irrigation, autopsy and sputum inductions and aerosol treatments that induce cough,

especially with immunosuppressed patients with active TB transmission.

8003. Definitions

a. Tuberculosis. A disease produced by infection with M. Tuberculosis. For purpose of this exposure control plan, persons infected with M. tuberculosis are considered to be in one of the following categories.

(l) Active TB Infection. The person has symptoms, signs, radiographic, or laboratory evidence of pulmonary, meningeal, military or extrapulmonary tuberculosis. Pulmonary tuberculosis is the most common form of active disease, but not the only one. It causes the most concern because of the potential to transmit the infection to others by the airborne route. In general such persons require treatment with multiple antibiotics, and will be or should be under the care of a physician.

(2) Latent TB Infection. The person has no symptoms, signs, or radiographic evidence of active disease; but does have evidence of infection, as indicated by the presence of a positive tuberculin skin test. For the purpose of this Exposure Control Plan, all individuals who have a positive tuberculin skin test are considered to have a tuberculosis infection. Although such individuals may also have active disease, for purpose of this chapter, tuberculosis infection refers solely to individuals whose only evidence of tuberculosis infection is a positive tuberculin skin test.

8004. Policy

a. All hospital staff members and volunteers, including facility workers who are not members of the Medical Department, will receive an annual tuberculin skin test. EXCEPTION: PERSONS ALREADY KNOW TO HAVE A DOCUMENTED POSITIVE PPD SHOULD NOT BE TESTED !!

b. Tuberculosis screening will be conducted using the Mantoux tuberculin skin test method pursuant to reference (j) and guidelines provided in the BUMEDINST 6224 series.

c. All patients/staff found to have a positive skin test, suspected or confirmed tuberculosis will be evaluated immediately by a health care provider and reported to the Preventive Medicine

Division, pursuant to reference (j) and guidelines provided in the BUMEDINST 6224 series and a SF600 TB questionnaire will be completed.

e. Isolation precautions will be applied for patients who are suspected or confirmed to have active tuberculosis and who may be infectious.

f. Personnel entering a room in which cide-fast Bacilli (AFB) isolation precautions are in place will wear a disposable high efficiency particulate air respirator (HEPA). A final ruling for this is not completed. Place paper mask on patient.

g. Isolation room air flow will be set up and maintained so that air flows into the room from the hallway (negative pressure) to minimize possible spread of tuberculosis bacilli into the general area. Isolation room doors must be kept closed to maintain control over the direction of the air flow.

h. If Tuberculosis infection or Active Disease is suspected prior to placement in a isolation room a properly fitted surgical mask or disposable, valveless PR will be given to the patient to reduce the spread of infectious particles when transporting within the facility or between facilities.

i. Prior to HEPA use, staff members will be adequately trained in the use of, disposal and properly fit tested as per NAVHOSP29PALMSINST 5100.1C.

8005. Risk Assessment

a. The purpose of this assessment is to evacuate the risk for TB transmission in the facility as a whole and in each individual area (ward, clinics, emergency department, military sickcall) and occupational group in the facility. Infection control interventions then can be based on actual risk. The interval for reassessment of risk and the frequency of Purified Protein Derivative (PPD) testing should be based on data from the most recent risk assessment.

(1) Review the number of TB patients seen per year, by area (inpatient and outpatient).

(2) Review the drug susceptibility patterns of M. tuberculosis isolated TB patients in the facility.

(3) Retrieve and analyze healthcare worker (HCW) PPD data, by area (inpatient and outpatient) or by occupational group (physicians, nurses, corpsman, respiratory therapists, medical clerks, etc.).

(4) Review medical records of a sample of consecutive TB patients to evaluate infection control parameters and isolation criteria.

(5) Perform an observational review of infection control practices.

(6) Review the most recent engineering and ventilation evaluation and maintenance procedures.

b. Classify risk for occupational group by Potential Exposure Determination. In determining the occupational risk to employees, all hospital working conditions and environment shall be evaluated at least annually. Duties, tasks, procedures and job classifications that place an employee at risk of occupational exposure will be taken into consideration. The following guidelines for potential exposure are provided.

(l) High Risk (Probable Routine Exposure)

(a) Physicians

(b) Physicians Assistants

(c) Nurses

(d) Hospital Corpsmen (to include IDC’s)

(e) Laboratory Technicians

(f) Medical Clerks and Receptionists

(2) Intermediate Risk (Non-routine/Possible Exposure)

(a) Ambulance Drivers

(b) Optometry and Pharmacy Personnel

(c) Occupational Health/Preventive Medicine Personnel.

(d) Medical Treatment Housekeeping Personnel.

(3) Low Risk (Unlikely Exposure)

(a) Administrative Personnel

(b) Audiology Personnel

(c) Biomedical Equipment Repair Technician

(d) Operating Management Personnel

(e) Facilities Maintenance Personnel

c. Risk classification will be based on data collected and analyzed regarding the following:

(l) The number of infectious TB patients admitted to the area or ward or the number of infectious TB patients to whom HCW's in an occupational category may be exposed.

(2) The results of the analysis of HCW PPD test conversions. Were PPD test conversion rates significantly greater than areas without TB patients or than previous rates in the same areas? Were there clusters of PPD test conversions over a 3-month period, e.g., two or more PPD conversions in one area or in a single occupational group working in multiple areas?

(3) Possible patient-to-patient TB transmission.

8006. Methods of Control

a. An effective TB control program requires early detection, isolation and treatment of persons with active TB. The program should be based on a hierarchy of controls designed to meet the frequency of HCW PPD testing above objectives. In order of importance, these include administrative measures to reduce the risk of persons with infectious TB, engineering controls to prevent the spread and reduce the concentration of infectious droplet nuclei, and the use of personal respiratory protective equipment.

b. Administrative Measures

(1) Consider a diagnosis of TB in any patient with

persistent cough (>2 weeks duration) or other signs or symptoms compatible with TB such as complaints of bloody sputum night sweats, weight loss, anorexia, or fever.

(2) The index of suspicion for TB should be very high in areas or among groups of patients in which the prevalence of TB is high.

(3) Institute diagnostic measures for identifying TB is suspected cases. These measures include history, physical examination PPD test, chest x-ray, and microscopic examination and culture of sputum or other appropriate specimens. Make laboratory methods for identifying TB rapidly available (our Lab must transport the AFB cultures to another facility to be read). triage patients using vigorous efforts to detect patients with active TB.

(a) Evaluate patients promptly to minimize the time spent in ambulatory care areas.

(b) Apply TB precautions while the diagnostic evaluation is being conducted.

(c) Place the patient in a separate waiting area apart from other patients ideally, in a room meeting TB isolation requirements.

(d) Provide the patients a surgical mask as well as tissues to cover the nose and mouth if the mask is removed during coughing or sneezing.

(e) Schedule appointments for patients with TB to avoid exposing HIV-infected or other severely immunocompromised persons.

(f) Direct the management of hospitalized patients with TB to include vigorous and rapid evaluation of suspected or confirmed TB cases, rapid initiation of treatment and initiation of TB isolation as per the most current medical guidelines. Administer antituberculosis medication by directly observed therapy (DOT).

(g) The success of TB isolation practice will be greatly enhanced by the following:

1 Educate patients who are placed in TB isolation about the transmission of TB and the reasons for isolation. This included being taught to cover their mouths and noses while coughing and sneezing, even when in isolation.

2 Keep the number of persons entering the isolation room to a minimum.

3 Perform diagnostic procedures in the isolate-tin room whenever possible to avoid transportation throughout the facility. Schedule diagnostic or treatment procedures that must be performed outside of the isolation room at times when they can be performed rapidly and when waiting and general use areas are less crowded.

4 Facilitate patient adherence to TB isolation measures, including the use of incentives if necessary.

5 Place warning signs outside the TB isolation room, e.g. "special respiratory isolation" or "AFB isolation".

c. Engineering Controls

(l) Design and implementation of engineering controls will take a concerted effort between infection control facilities engineers, industrial hygiene, occupational health and safety personnel. The program will include review of general use areas, TB isolation rooms, and special therapy rooms.

(2) General Use Areas include waiting rooms, emergency room, radiology suites, and other areas potentially shared by TB patients and other patients or staff. The following guidelines shall be used for ventilation systems in general use areas:

(a) Design and maintain ventilation systems so that air flows from clean areas to less-clean areas.

(b) Supplement the general ventilation in facilities or areas serving populations with a high prevalence of TB with additional engineering approaches (e.g., ultraviolet germicidal irradiation (UVGI), HEPA filtration) in general use areas where patients with TB are likely to be found.

(3) Isolation Rooms (private room) shall be used for patients suspected or known to have infectious TB. This includes patients in rooms where high risk procedures are performed.

(a) Maintain the isolation room under negative pressure.

(b) Design the ventilation system to achieve the best possible ventilation air flows, with a minimum of 6 air changes per hour (ACH).

(c) Keep doors to the isolation room closed, except when patients or personnel must enter or exit the room.

(d) Exhaust air from the isolation rooms directly to the outside of the building (away from intake vents, open windows or populated areas). When the ventilation system or facility configuration is such that it is impossible to vent the exhaust to the outside, exhaust through properly designed, installed and maintained HEPA filters before returning the air to the general ventilation.

(e) The isolation rooms are located on the multi-service ward under negative pressure as per references (i) and (j).

d. Special Use Areas. Use source control techniques such local exhaust ventilation in areas where medical procedures are performed that are likely to generate aerosols containing infectious particles. This can be done using enclosure devices or exterior devices that capture and discharge air directly to the outside (away from populated areas, open windows, and intake vents) or through properly designed, installed and maintained HEPA filters. The location of special use areas and the course control techniques to be used for the aerosol generating medical procedures must be specified within the specific departmental standard operating procedures manual.

e. Monitoring of Ventilation and Other Engineering Controls shall be by the Facilities Management Department and Industrial Hygiene Division to include:

(1) Evaluate the entire ventilation system, based on the risk classification of the areas within the facility, on a periodic basis per references (i) and (j).

(2) Check the negative pressure in isolation rooms daily (when in use) using smoke tubes.

(3) Verify a minimum air velocity of 100 feet per minute into negative pressure rooms periodically, but at least quarterly, using an air velocity measuring device (e.g., thermoanemometer).

(4) Implement a regular scheduled maintenance program to monitor HEPA filters for leakage and for filter loading.

8007. Personal Respiratory Protection. All staff members and volunteers will wear NIOSH-approved high efficiency particulate air (HEPA) respirators in the following circumstances:

a. When entering rooms housing individuals with suspected or confirmed infectious TB disease.

b. When performing high hazard procedures on individuals who have suspected or confirmed disease. Example of high hazard procedures include aerosolized medication (e.g., pentamidine) treatment, bronchoscopy, sputum induction, endotracheal intubation and suctioning procedures, and autopsies.

c. When emergency-medical-response personnel or others must transport, in a closed vehicle and individual with suspected or confirmed TB. Suspected TB means a patient who has signs, symptoms, radiographic, or laboratory evidence supporting a diagnosis of probable TB, but in whom confirmation has not yet been done.

d. Provide patients with suspected or confirmed TB disease surgical masks to wear when they are outside of the isolation room or in general use areas. Employees that transport the patient do not need to wear a respirator outside of the isolation room, unless they are transporting the patient in a closed vehicle. Do not place visitors into the command Respiratory protection Plan (RPP).

e. Individuals who are required to wear respirators under this plan will receive training, medical screening, and fit testing as part of a comprehensive RPP that is in full compliance with 29CFR 1910.134, OPNAVINST 5100.23C, Chapter 15 and NAVHOSP 29PALMSINST 5100.1C, Chapter 11. Oversight for the program will be assigned to the Command Safety Manager and Industrial Hygienist. The command Safety manager and Industrial Hygienist will develop standard operating procedures that contain information on all aspects of the RPP. The command Safety manager and

Industrial Hygienist are also responsible for evaluating the RPP at least monthly.

8008. Employee Health

a. All medical providers shall ensure that personnel with positive PPD tests, PPD test conversions, or symptoms suggestive of TB are identified, evaluated promptly to rule out active TB, and started on therapy or preventive therapy if indicated.

b. Counsel health care Workers (HCW's) regarding TB:

(l) All HIV-infected or severely immunocompromised HCW's should be counseled about their increased risk of rapid progression from latent TB infection to active TB disease and the need to follow existing infection control recommendations.

(2) Reasonable attempts to offer alternative job assignments should be made for those immunocompromised employees who work in a high-risk setting for TB transmission.

c. Screening HCW's for active TB:

(l) At employment, all HCW's should receive a Mantoux PPD. The health records of active duty personnel shall be screened at time of check-in, to ensure that there has been a PPD test within the 12 months. On the initial test, two-step testing (a second test) should be performed to detect boosting phenomena might be misinterpreted as new PPD conversions.

(2) PPD tests should be administered, read and inter-preted according to current guidelines provided in reference (j) and BUMEDINST 6224.8.

(3) The frequency of repeated PPD testing for all PPD-negative HCW's depends on the risk assessment of the employee's work area or occupational group within the facility.

(4) If PPD test conversions are identified, other HCW's assigned to the same work area should be tested to determine if there is additional evidence of transmission in the work area.

(5) Result of PPD tests should be recorded in the individual HCW's health record and in a retrievable aggregate database of all HCW PPD test results located in the Occupational

Health/Preventive Medicine Department. The aggregate data will be periodically analyzed by the Infection Control Officer or head, Occupational Health/Preventive Medicine department to estimate the risk of acquiring new infection.

b. Evaluation of HCW's with positive PPD's

(l) All HCW's with newly recognized positive PPD tests or PPD test conversions should be promptly evaluated for clinically active TB with a chest X-ray and clinical evaluation. The Occupational Health/Preventative Medicine Department will maintain surveillance of all PPD reactors.

(2) Consider drug susceptibility patterns from known sources of exposure to determine appropriate preventive therapy for the HCW with a PPD test conversion.

(3) HCW's with a positive PPD will be notified periodically that a clinical valuation is warranted if pulmonary symptoms develop which are suggestive of active TB.

(4) No work restrictions are required for HCW's with latent TB infection.

c. HCW work restrictions for HCW with active TB:

(l) HCW's with pulmonary or laryngeal TB should be excluded from work until they are no longer infectious. Before the HCW can return to work the provider should ensure that the HCW is receiving adequate therapy, cough has resolved and the HCW has three consecutive daily sputum AFB smears which are negative.

(2) After return to work the provider should ensure that the HCW continues effective drug therapy for the appropriate time period and remains AFB sputum smear negative.

(3) Preventive Medicine will provide follow-up and proper documentation.

(4) HCW's with TB at non-pulmonary sites can return to work if the HCW is receiving adequate therapy and has had clinical improvement.

d. Investigating PPD conversions and active TB in HCW's

(1) The provider shall promptly evaluate the HCW with a new PPD conversion for active TB. The initial evaluation should be a thorough history physical examination, and chest x-ray.

(2) Conduct a contact investigation in the HCW's work area of occupational group to determine if additional TB transmission has occurred. PPD testing protocols for high risk work areas may be required in some investigations.

(3) Problems with patient detection, TB isolation practices, or engineering controls need to be corrected, if identified.

(4) Notify the Occupational Health/Preventive Medicine Department and the Infection Control Officer when HCW's develop active TB to allow for disease reporting and contact investigation of community contacts not exposed in the facility.

e. Reporting of positive PPD skins test and active TB:

(l) Record positive PPD skin tests in the medical record (SF-601) as "number of millimeters" and on the "OSHA Log of Occupational Injuries and Illness" (Safety Office) (OPNAV Form 5102/7 is the Navy equivalent) if the positive skin test is recent or work related.

(2) Record positive skin tests even when there is no active TB.

(3) Update the log if a worker's TB infection progresses to active TB.

f. Employees exposure and medical records. The Occupational Health/Preventive Medicine Department and Staff Sickcall shall maintain employee exposure and medical records in accordance with 29 CFR 1910.20 and BUMEDINST 6224.8.

8009. HCW Education and Training. The Infection Control Officer in conjunction with the Education and Training Department shall provide a training program about TB that is appropriate to staff job category. Training will be conducted before initial assignment (Command INDOC) and subsequently on an annual basis during command annual training. The following elements will be included in our TB training program.

a. The basic concepts of TB transmission pathogenesis, and diagnosis, including the difference between latent TB infection and active TB disease, and the signs and symptoms of active TB.

b. The community factors such as TB prevalence and occupational situations which increase the risk of exposure to TB in the facility.

c. The command infection control policies to reduce the transmission of TB. Site specific infection control measures may be additionally needed in high-risk areas.

d. The employee health policies pertaining to PPD testing PPD positive results, and the principles of preventive therapy for latent TB infection.

e. The responsibility of the HCW to seek medical evaluation promptly if symptoms develop which could be due to active TB in order to receive appropriate evaluation and treatment and to prevent TB transmission to patients and other HCW’s.

f. The importance of the Provider or HCW to notify Head, Occupational health/preventive Medicine Department and the Infection Control Officer if diagnosed with active TB so that appropriate contact investigation can be initiated.

g. The responsibility of Head, Occupational Health/Preventive Medicine department and the Infection Control Officer will be to maintain confidential information about the HCW while assuring that the HCW receives appropriate therapy and is not infectious before returning to work.

h. The high risk of HIV-infected or severely immunocompromised persons to have cutaneous anergy (false-negative skin tests) as immune function declines, their more rapidly developing clinical TB after infection, with M. tuberculosis, their having different clinical presentations of active TB, and the high mortality of multiple drug resistant TB disease in such individuals.

i. The Command/DOD policy of work reassignment options for severely immunocompromised HCW’s as per SECNAVINST 5300 series.

8010. Action

a. The Infection Control Officer shall:

(1) Conduct risk assessment on any patient admitted with a positive PPD in conjunction with Preventive Medicine.

(2) Provide technical assistance regarding the use of Personal Respiratory Protection, monitoring of ventilation and other engineering controls.

(3) Conduct a ventilation survey of isolation rooms in conjunction with facility IH Survey or as needed.

(4) Provide copies of all cases, or suspected cases, of health care worker exposure to TB to the Infection Control Officer.

(5) Provide case information to Command Safety Manager.

b. The Director medical Services shall be responsible for all medical aspects of this Exposure Control Plan.

c. The Command Safety Manager shall:

(l) Review and provide technical assistance regarding the use of Personal respiratory Protection and coordinate associated training with the MCAGCC Safety office.

(2) Document all work related PPD converters on the OSHA log of Occupational Injuries and Illnesses (OPNAV Form 5102/7).

d. Facilities Management Department shall:

(1) Institute and maintain a schedule to monitor ventilation, negative pressure in isolation rooms and HEPA filter systems within this Command, at least quarterly.

(2) Perform all necessary maintenance on the ventilation system provided it is within the scope of their capabilities.

(3) Provide technical assistance as needed related to the function of the ventilation systems.

e. Department Heads shall:

(1) Ensure all occupationally exposed health care workers under their cognizance report to OH/PM as soon as possible.

(2) Ensure all occupationally exposed health care workers under their cognizance are reported to the Command Safety Manager and the Infection Control Nurse.

(3) Ensure personnel under their cognizance receive all required program training prior to performing functions that may put them at risk of exposure to TB.

APPENDIX A

QUALITY OF CARE REVIEW (QCR)			
ART II: DEPARTMENT HEAD/SUPERVISOR REVIEW: (Complete within 2 working days)			
Print name of Reviewer	Signature	Rank/Rate/Grade/Title	Date

If applicable, Involved Parties have reviewed this QCR?	Yes	No
Do Involved Parties wish to make a statement & attach to QCR? RETURN TO RISK MANAGEMENT WHEN PART II COMPLETED	Yes	No

PART III: MEDICAL STAFF/PIPA OR NURSING/DNS REVIEW			
Review: WITHIN STANDARD OF CARE _____ OUTSIDE STANDARD OF CARE _____			
Print Name of Reviewer	Signature	Rank/Title	Date

PART IV: COLLABORATION – Could other department(s)/directorate(s) benefit from a review of this process/system review? If yes, please notate area(s) and reason(s) for the review:

PART V: LESSONS LEARNED (Can you identify any lessons learned from the Process or System Reviewed?)

PART VI: RETURN TO RISK MANAGEMENT DEPARTMENT. Risk Management Review			
Print Name of Reviewer	Signature	Rank/Rate/Grade/Title	Date

Date Rec's Completed RM:	Date QCR Initiated:	Date QCR Complete:	Letter to DH for CAF? Y N

(Test Form)

APPENDIX B
MISHAP REPORT

Command: NAVHOSP 29PALMS, CA UIC:35949 Date of Report:_____
Type of Mishap: Near Miss__ Personal Injury__ Death__ Other_____
Date:_____Time of Mishap:_____Location of Mishap:_____
Evolution at time of mishap:_____
Maintenance Work__Repair__Construction__Sports__Other_____
Equipment or Property Damage:_____
Estimated Cost: DoD:_____Non-DoD:_____
Name of Injured:(Last, First, MI):_____Male/Female:____
SSN:_____Rank & Rate:_____ Grade: _____Phone:_____
__USN __USNR __USMC __CIV/SERV __OTHER:_____Dept:_____
Duty Status at Time of Mishap: __On __Off Other:_____
Medical Diagnosis: __Fatal __Permanent Partial Disability
__Permanent Total Disability __ No Disability
Who Caused Mishap?_____(Use List A)

List A

11-Supervisor/Foreman
12-Operator
13-Maintenance Worker
14-Motor Vehicle Driver
15-Watch-Stander
16-Off-Duty Military (Use for all off-duty)
17-Preventive Maintenance Inspector
99-Other
(Specify)_____

What Did he/she Fail to Do? ____ (Use List B)

List B

21-Correctly operate controls/ Monitor displays
22-Perform PMS/Maintenance Properly/Lockout
23-Recognize hazardous situation
24-Use proper caution for known risk
25-Use personal protective equipment
(specify)_____
26-Use proper tool/equipment for job
27-Take corrective action
28-Plan adequately
29-Match task to person's ability
30-Coordinate tasks
31-Provide proper work/rest cycle
32-Supervise progress of work
33-Inspect completed work
99-Other
_____
_____

Why did he/she fail to carry out actions? ___ (Use List C)

List C

---Behavior Factors---

41-Not convenient/comfortable
42-Lack of concern/interest
43-Distracted/inattention
44-Haste
45-Habit
46-Overconfidence
47-Excessive motivation
48-Emotionally aroused (angry, worried, etc.,)

---Training/Experience Factors---

51-Inadequate knowledge of personnel/equipment
52-Insufficient experience/skill/ training/equipment
99-Other (specify)_____
_____
_____

---Medical Factors---

61-Fatigue
62-Alcohol/hangover
63-Drug Use (see note #1)
64-Drug Abuse (see note #1)
65-Illness (See note# 2)
66-Physical Handicap/impairment

---Communication Factors---

71-Disrupted communication
72-Misunderstanding
73-Failure to detect warning signal indicator

---Design Factor---

81-Restricted Vision
82-Inadequate work space
83-Personal equipment interference
84-Inadequate/unavailable tools/equipment
85-Poor design/location of control/displays

Note1 Drug Use (1) Prescribed drugs/medicine used as prescribed or
(2) Not prescription drugs/medicine used as directed
(3) Any other use of drugs/medicine is drug abuse

Note# 2 If the illness is a result of present or past employment give details and narrative

POST EXPOSURE PROPHYLAXIS (PEP)
PROVIDER ENCOUNTER FORM

Patient Name:_____ Date:_____

SSN: _____ Time of exposure: _____

Weight (KG):_____

Patient Category (check appropriate line):
1. Active Duty_____
2. Civil Service_____
3. Contract_____

A brief summary of what happened:

RISK vs TIME: This process is time critical, PEP is the most effective when given within one or two hours of exposure.

1. Is the source paptient known HIV positive? If yes, then continue. If no, then skip to Section VII.

2. Is PEP indicated? If yes, the Physician will order a 24 hour supply of the medications and the pharmacy will dispense. If you doubt whether or not the exposure is high risk, then it is more prudent to give the PEP for 24 hours until the case can be reviewed by Infectious Disease.

I. TYPE OF EXPOSURE (*circle)*

1) percutaneous
2) mucous membrane
3) skin (skin integrity is intact, short duration of contact, small area of contact)
4) skin (prolonged contact, an extensive area, or an area where skin integrity is visibly compromised)

II. SOURCE OF HIV MATERIAL (*circle)*

a) blood
b) fluid containing visible blood or semen, vaginal secretions, and cerebrospinal spinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids
c) other (*ie* Urine)
d) any exposure to concentrated HIV is treated as percutaneous exposure to blood with high risk

III. ANTIRETROVIAL PROPHYLAXIS RISK EVALUATION

1. Use the circled answers from the above I and II sections to evaluate risk category below:

   1a, 1d, 2a, 2d, 3d, 4a, 4d = *Highest Risk* = Recommend PEP (3 drug prophylaxis)

   1b, 2b, 3b 4b =*Increased Risk*= Offer PEP (2 drug prophylaxis $\pm$IDV)

2. Indicate type of risk:

3. Definitions:

   a. High Risk: Both large volume of blood and blood containing HIV.
   b. Increased Risk: Either large volume of blood nor blood containing HIV.
   c. No increased Risk: Neither large volume of blood nor blood containing HIV.
   d. Recommend: PEP should be recommended to esposed worker with counseling.
   e. Offer: PEP should be offered with counseling.
   f. Not Offer: PEP should not be offered because these are not occupational exposures.

IV. TYPE OF 24 HOUR PEP TO BE DISPENSED AND COUNSELED ON:

1. Emergency Department Physician will prescribe PEP and the pharmacy will dispense the medication(s).

   a) AZT 200 mg PO TID; plus 3TC, see dosing Encl. (B); plus Indinavir 800mg PO BID.

   b) AZT 200 mg TID; plus 3TC, see dosing Encl. (B).

V. NOTIFICATION OF PERSONNEL:

1. Employees' supervisor notifies Department Head during normal business hours. Supervisor notifies OOD after hours.

2. Call the Infectious Disease Medical Officer.

3. Infectious Disease fellow at Naval Hospital San Diego by calling:

   a) Infectious Disease Department at (comm) (619) 532-7475 (DSN) 522-7475 if present time is before 1600.

   b) The OOD at (comm) (619) 532-6400, (DSN) 522-6400 and have the ID Fellow paged if the present time is after 1600.

      1) Inform them that PEP has been dispensed and to make arrangements for the follow-up within 24 hours.

      2) Instruct patient on the time and place of the follow-up appointment or to call the ID Department @ 532-7475 within 24 hours if no page return.

VI. EXPOAURE SITE EVALUATION

1. Was exposure site washed or flushed after exposure? If no, then wash or flush immediately.

2. Is medical intervention required for wound care?

   a) ER referral necessary (*circle*): yes no

VII. FOLLOW-UP

1. If exposure occurred after hours, instruct the patient to report to Occupational health next business day (stress that this follow-up is mandatory for all patients).

VIII. COMPLETION

1. Did the patient receive the medication within the specified time?

2. Dispense 2 24-hour supply of the medication and stress to them that the follow-up with ID and/or Occupational health is mandatory.

IX. ENCOUNTER FORM:

1. Have patient sign encounter form prior to discharge from the ER.

2. Photocopy and give a copy of the encounter form and drug information sheet(s) (if prescribed) to the patient.

Patients Signature:_____Date:_____

Provider Signature:_____Date:_____